



INDIAN MINES ACT, 1923

ANNUAL REPORT

OF THE

CHIEF INSPECTOR OF MINES IN INDIA

FOR THE YEAR ENDING

31st DECEMBER 1937



DELHI MANAGER OF PUBLICATIONS
1938



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From

W KIRBY, Esq, B Sc, M I Min. E,
CHIEF INSPECTOR OF MINES IN INDIA

To

THE SECRETARY TO THE GOVERNMENT OF INDIA
DEPARTMENT OF LABOUR,
SIMLA

Dated Dhanbad, the 30th May 1938

SIR,

I have the honour to submit the report upon the inspection of mines in British India for the year ending 31st December 1937

INTRODUCTION

The separation of Burma from India took effect from 1st April 1937, and no statistics for Burma have been included in this report

The Indian Mines Act, 1923, applies to British India only and not to the Indian States. For the complete figures of production of all minerals raised from excavations of all depths in British India and the Indian States reference may be made to the statements of the 'Mineral Production of India' published annually in the records of the Geological Survey of India and to the "Quinquennial Review of the Mineral production of India" published every five years by the same Department. Detailed information of the mineral industries in Mysore—where the Kolar gold field is situated—and Hyderabad (Nizam's Dominions) is given in the annual reports of the Chief Inspector of Mines in those States

SECTION I.—PERSONS EMPLOYED.

During the year 1937 the daily average number of persons working in and about the mines regulated by the Indian Mines Act was 267,858, as compared with 269,593 in the previous year. The decrease was 1,735 persons or 0.64

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per cent. Of these persons 122,807 worked underground, 72,747 in open workings and 72,304 on the surface. The numbers of men and women, respectively, who worked underground, in open workings and on the surface were as follows :—

	Men.		Women.	
	1937.	1936.	1937.	1936.
Underground . . .	118,920	123,423	3,887	7,301
In open workings . . .	48,268	52,122	24,479	17,071
Surface	52,387	51,413	19,917	18,263
Total	<u>219,575</u>	<u>226,958</u>	<u>48,283</u>	<u>42,635</u>

The number of women employed underground was 3,887, or 3·17 per cent. of the total number of men and women employed underground. The percentage of women employed underground in coal mines was 3·79, as compared with 6·87 per cent. in 1936, 8·99 per cent. in 1935, 10·94 per cent. in 1934 and 13·14 per cent. in 1933. The provincial distribution of the women who worked underground was as follows :—

Province.	Number of women employed underground.		Total.
	In coal mines.	In salt mines.	
Bengal	1,352	..	1,352
Bihar	2,185	..	2,185
Central Provinces	335	..	335
Orissa . . . . .	..	..	..
Punjab . . . . .	..	15	15
Total	<u>3,872</u>	<u>15</u>	3,887 in 1937, as compared with 7,301 in 1936.

The daily average number of persons employed in coal mines was 171,149, which is 8,232 more than the number employed in 1936. Of these persons 46,192 were males employed in cutting coal, 24,356 were males employed as loaders of coal and 22,887 were women.

The increase in the daily average number of persons employed in coal mines in 1937, as compared with 1936, is reflected in the larger quantity of coal produced.

Annual returns are now received of the number of persons actually at work and also of persons who should ordinarily have been at work but were absent on a selected day in February of each year. The returns relate only to coal mines. The day to which the returns apply must be the day of a

week selected by the Chief Inspector in which there is the largest turn out of workers For February 1938 the week selected by me was as follows —

Bengal Bihar and Orissa

13th to 19th

Assam Baluchistan the Central Provinces and the Punjab

6th to 12th

Although these returns are for a day in 1938, they are included in this report as they would be more than a year out of date if held over till the submission of the report for the year in which they are made

The returns for 1938 show that on the day selected 266 571 persons were either at work or were prevented from attending work This figure is 95 422 more than the average number of persons employed in coal mines during 1937 Three of the important district comparisons are as follows —

	Average daily attendance	Attendance on selected day (absentees included)	Excess over average daily attendance	Percentage excess
Jharia Coalfield	71 203	115 422	44 217	62 34
Raniganj Coalfield	57 813	87 653	29 840	51 60
Central Provinces Coalfield	11 918	16 360	4 442	37 35

Some of the percentages of absentees are as follows —All mines from which returns were received 82 Jharia 30 Raniganj 79 and the Central Provinces 77 It is probable that the reason for the low percentage of absentees in the Jharia coalfield is that a larger proportion of the labour force is resident at or near the mines than in the other mines A detailed statement compiled from the returns is given in Appendix I Table No 1 A It may be noticed that the percentage of excess of labour on the selected day in February over the average daily attendance in the Jharia coalfield has increased from 12 18 to 55 51 and in the Raniganj coalfield from 12 98 to 51 60 while in the Central Provinces it has increased from 26 88 to 37 35 The output of coal in the Jharia coalfield during that month increased by 27 per cent and the difference in proportion to the increase of labour may be attributed to two reasons —

(1) the removal of overburden in the process of forming extensive quarries during which period no coal was raised, and (2) to the recent opening of collieries A typical example in the former case is one in which the labour figure last year was 379, while the labour employed this year at the same colliery increased to 2,501, and in the latter case at a colliery which was re opened the labour employed this year being 1 856, while last year it was 1 000 In the Raniganj field the increase in the percentage of labour is in keeping with the increased output of coal during that month so also in the Central Provinces coalfield It should be pointed out that February is probably the busiest month of the year and the month in which labour is most plentiful and that the figures for average daily attendance do not include absentees

Figures showing the average output of coal per person employed are given below:—

	Tons of coal per person employed.			
	Underground and in open workings.		Above and below ground.	
	1937.	1935-36.	1937.	1935-36.
British India	189	182	131	129
Bengal and Bihar	192	186	132	131
Assam	169	150	117	105
Baluchistan	42	41	41	41
Central Provinces	175	163	126	117
Orissa	198	203	146	151
Punjab	110	113	69	74

There was a general increase in the average output of coal per person employed except in Baluchistan and Orissa. In comparing the figures with similar figures in other countries it should be remembered that both men and women are employed in Indian coal mines. In 1936 the output of coal per person employed above and below ground in the United Kingdom was 298 tons. In the same year, i. e., 1936 comparative figures in certain other countries were Japan 207 tons; France 210 tons; Germany 311 tons; and the United States of America 671 tons.

The number of persons employed in metalliferous (including mica, stone, clay and salt) mines was 96,709 which is 9,967 less than the number employed in 1936. 71,313 were men and 25,396 were women. Of the women 15 worked underground in salt mines.

Bengal, Bihar and Orissa.—At the beginning of the year there was a shortage of labour on account of the good harvest season. Many colliery owners were compelled to transport the miners from their villages in buses in order to obtain the necessary labour. Wages were increased by as much as 25 per cent. at some collieries, necessitated by the elimination of female labour from the underground workings of mines on 1st October. Towards the end of the year the supply of labour was ample. The relations on the whole between employers and labour continued to be good. At one colliery there was a partial strike for increased rates which lasted for three days.

The general health of the mining population in the Jharia and Raniganj coalfields was on the whole satisfactory. The death rate per thousand persons was lower both in the Raniganj and Jharia Mining Settlements. Details of the activities of the Mines Board of Health in the Raniganj and Jharia coalfields are given in Section V of this report, from which it will be seen that the work of both the Boards is being satisfactorily maintained.

In the iron ore mines of Singhbhum district there was no shortage of labour during the year. There was a further increase in the miners' wages,

due to an increase in the rates and an increase in the output per head. Apart from a minor strike which lasted one day there was no further labour trouble.

At the copper mines worked by the Indian Copper Corporation Limited in the Singhbhum district, there was an ample supply of labour. A lightning strike for three days occurred in April at the smelter. Labour unrest was a conspicuous feature during the year but it abated towards the end of the year. There was no outbreak of epidemic disease.

At the mica mines of Chota Nagpur there was an insufficient supply of labour. Most of the labour was attracted to dump work by the high rates offered. There was no epidemic or strike during the year.

Assam—There was a sufficient supply of labour and there were no strikes or epidemics. The use of water proofed safety helmets was continued and two hundred helmets were supplied free of cost to the miners during the year.

Central Provinces—In the Pench Valley coalfield there was a shortage of labour on occasions and particularly in the months of October and November following the elimination of females from the underground workings of mines. There was a slight increase in the rate of wages. The prices of food stuffs remained much about the same. The relations between the employers and labour were good. On the whole the general health of the labourers was good.

At the manganese mines in the Central Provinces there was a heavy demand for ore during the middle part of the year and the opening of a large number of small mines resulted in a large demand for labour and a general tendency for wages to rise. There were no strikes or labour disputes. There was an epidemic of cholera at one mine resulting in 73 attacks and 25 deaths. There were no other outbreaks of epidemic disease.

Punjab—There was no change in the labour conditions, the supply exceeding the demand. There was no epidemic and the health of the labourers remained satisfactory. A lady doctor and a Sanitary Inspector were employed to supervise the welfare of the labourers and improve sanitary conditions. The rainfall was again below the average but there was no shortage of water during the year.

Madras—There was a plentiful supply of labour at the mica mines during the year. Increased wages were paid as a result of the increased demand for mica. The relations between employers and labour were good.

In the table on page 6 figures are given of the average daily wages paid in December in each important mining field in India. If the figures are compared with those in last year's Annual Report it will be seen that there was a general increase in the wages paid to underground miners in all the coalfields. There were also small increases in wages paid to other classes of labour in practically all the coalfields.

Section II.—Output of Minerals

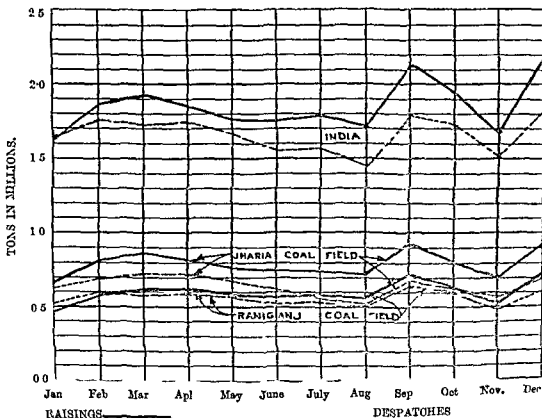
COAL.

Output—The statement given below shows the output of coal in the various provinces in British India during the years 1936 and 1937

	Output in tons	
	1937	1936
Assam	243,650	201,591
Baluchistan	10,621	3,451
Bengal	6,527,820	6,667,841
Bihar	13,835,516	12,015,205
Central Provinces	1,504,159	1,507,982
Orissa	47,127	31,061
Punjab	166,632	160,849
Total	<u>22,335,528</u>	<u>20,583,982</u>

The total output in 1937 was 22,335,528 tons of a declared value of Rs 6,98,79,139. The increase in the output was 1,751,546 tons, i.e., 8.51 per cent and the increase in the value Rs 1,38,94,100, i.e., 24.82 per cent. The opening stocks in 1937 were 896,723 tons and the closing stocks 821,021 tons. In the charts which appear below the raisings and despatches of coal are shown month by month —

RAISINGS AND DESPATCHES OF COAL MONTH BY MONTH IN 1937



It will be seen from the chart that, as usual, the output was highest in the first three months of the year. The fall of output in November was greater than usual due to a plentiful harvest.

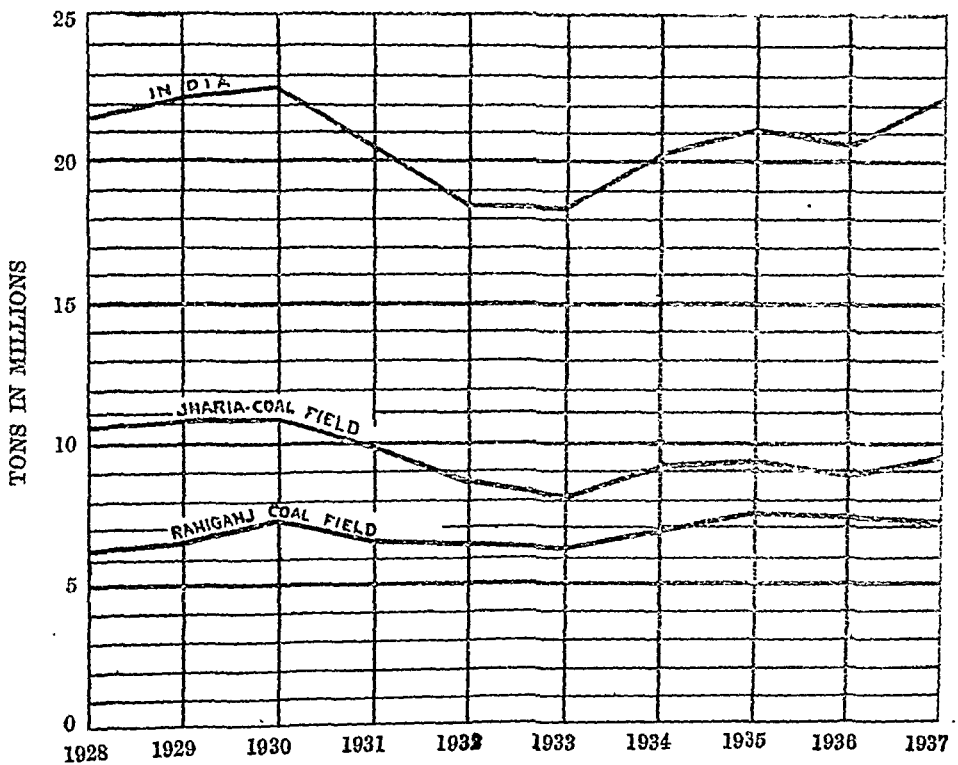
The output in Bihar increased by 1,820,311 tons; there was an increase of 16,066 tons in the Province of Orissa; and in Bengal there was a decrease of 140,021 tons. In the Central Provinces the output decreased from 1,507,982 tons to 1,504,159 tons. There were increases of 9,783 tons in the Punjab, and 7,173 tons in Baluchistan. There was an increase of 42,057 tons in Assam.

The figures of output for the principal coalfields are as follows :—

Coalfield.	1937.	1936.	Percentage increase + or decrease —
Jharia	9,601,230	8,830,144	+8.73
Raniganj	7,196,324	7,305,437	—1.49
Bokaro	2,309,170	1,417,227	+62.93
Giridih	674,794	698,133	—3.34
Karanpura	534,328	396,083	+34.90
Pench Valley	1,234,233	1,259,133	—1.98
Assam	243,650	201,593	+20.86

The output of the Jharia coalfield increased by about 8½ per cent., the Raniganj coalfield decreased by about 1½ per cent., the Karanpura coalfield increased by about 35 per cent., and the output of the Assam coalfield by more than 20 per cent. There was a decrease in the Pench Valley coalfield of the Central Provinces of 2 per cent. and in the Bokaro coalfield an increase of 63 per cent. In the Giridhi coalfield the output fell by 3½ per cent. The accompanying chart shows the variation of the output of coal during the period 1928-1937.

CHART SHOWING OUTPUT OF COAL DURING THE PERIOD 1928-37.



Despatches—The despatches of coal were 19,942,554 tons and 1,192,793 tons, or 5.34 per cent of the raisings were consumed on the collieries. The quantity of coal used for coking at the collieries was 1,272,883 tons, and 837,145 tons of soft coke and 95,439 tons of hard coke were made. There was a decrease of 8.7 per cent in the quantity of soft coke manufactured at the collieries for domestic consumption. The quantity of hard coke made at the collieries is small. Most of the hard coke is made at coke making plants which do not come under the Mines Act, and 1,928,752 tons of coal were despatched to coke making plants of this kind in 1937. This quantity is 93,755 tons more than in 1936. Analyses of the figures relating to the output of coal and the manufacture of coke will be found in Appendix I, Table No. 3.

The despatches of coal for the year were more than those for 1936 by 1,719,420 tons. The stocks of coal at the collieries at the end of the year were less than at the beginning.

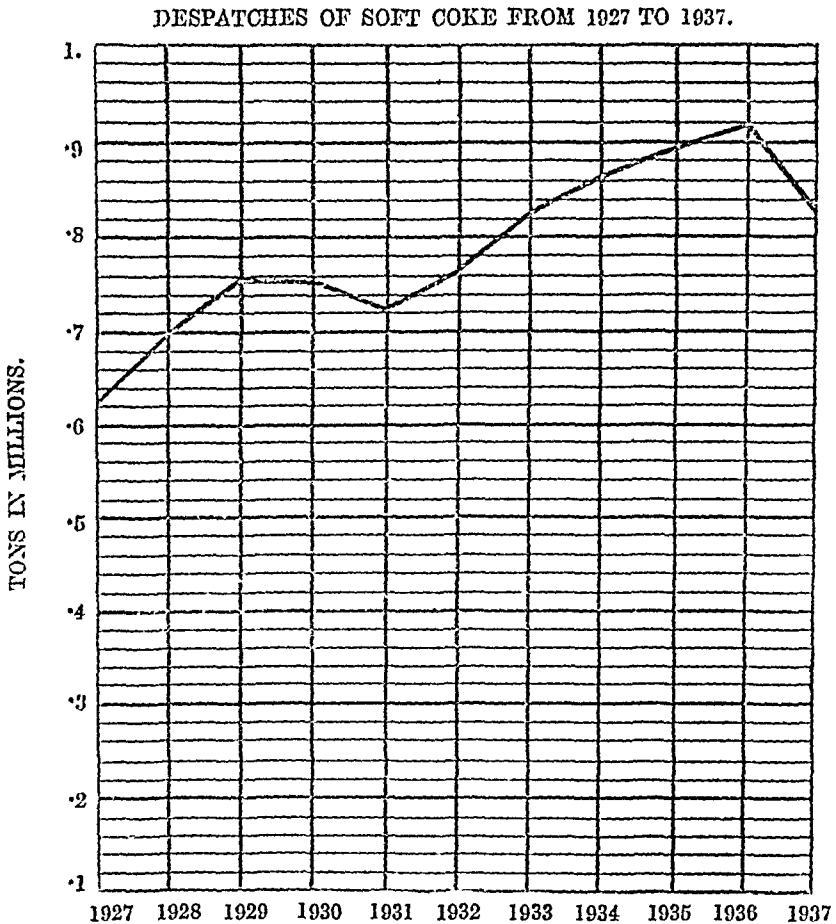
The following figures giving the average value per ton of coal put into wagons in various districts may be of interest—Assam, Rs 8 annas 23; Baluchistan, Rs 6 annas 12 3; Bengal, Rs 3 annas 6 3; Bihar (Jharia coal-field), Rs 3 annas 8 6; Central Provinces, Rs 3 annas 8; and the Punjab, Rs 5 annas 2 5. There were increases in the average per ton of coal in Baluchistan, Bengal, Bihar and the Punjab of annas 13 4, annas 11 5, annas 4 2 and Re 1 annas 3 7, respectively. In Assam and the Central Provinces there were decreases of Re 1 annas 4 2 and annas 1 4, respectively.

Trade Conditions—The demand for coal was good throughout the year. From April until the end of the year prices increased while the supply of coal could not meet the demand. Enquiries from overseas could not be met and the outlook, until December, was excellent, when the market was slightly weaker, but with forward commitments made at favourable prices for most classes of coal. The contract for the Ceylon Government Railway was retained by the Indian coal owners.

The Soft Coke Cess Committee continued as on previous years to carry out its work, and its report for 1937 is appended.

The question of improving the quality of soft coke is still under the attention of the Committee. During the year the prices of soft coke were very high due to a shortage of coal and coke and despatches were affected. Approximately 830,784 tons of soft coke were despatched from the coalfields in the year 1937, as compared with 915,719 tons in 1936. Out of the output for 1937, 786,125 tons were despatched.

in the Jharia coalfield. The accompanying graph shows the development of the soft coke industry during the last ten years.



Use of Electricity both at Coal Mines and at other mines.—The number of coal mines using electrical energy was 124, the same as in 1936,—but the aggregate horse power employed at coal mines increased from 84,168 to 86,804, i. e., by 3.1 per cent. The increase is due to the increased horse power of motors installed chiefly in the Jharia, Raniganj and Central Provinces coalfields. During the year an electrical plant was installed and brought into operation in three coal mines and was withdrawn from three other mines. Of mine _____, _____, _____, the _____ were re-opened and three were closed.

Electricity was used at 24 coal mines in 1936, and the aggregate horse power employed was _____ in the year, showing an increase of _____ per cent.

Statistics of electrical energy consumed in certain coal mines are given in the following Table.

_____ mines in 1936, and the aggregate horse power employed was _____ t. _____

Explosives—During the year 2 751,418 lb of gunpowder, 61,840 lb of high explosives, and 220 519 lb of 'permitted' explosives were used at coal mines. These figures compare with 2,181,106 lb of gunpowder 45,237 lb of high explosives and 95 078 lb of 'permitted' explosives used in 1936. In addition 112 881 lb of liquid oxygen explosives were used. These explosives were used in quarries in the Bokaro coalfield. A statement of the kind and quantity of explosives used during the year in the different kinds of mines under the Act is given in Appendix I, Table No 12.

An appendix has been added giving a list of "permitted" explosives and a list of approved types of shot firing apparatus.

Coal Cutting Machines—The number of coal-cutting machines in use was 140, as compared with 110 in 1936. All the machines were worked by electricity. 46 machines were at work in Jharia coalfield, 78 machines in the Raniganj coalfield, 5 in Kharanpura coalfield, 1 in Giridih coalfield, 1 in Bokaro coalfield and 9 in the Central Provinces. There has been an increase of eight machines in the Jharia coalfield and of fifteen machines in the Raniganj coalfield. Coal cutting machines were in use in 50 mines as against 39 mines in 1936, the total area undercut was 6 890 160 square feet, as compared with 5 357,389 square feet undercut in 1936. There has thus been a considerable increase in the output obtained in many mines from the use of machines. The re introduction of coal cutting machines during the year in some of the mines from which they were withdrawn during the depression period is due partly to the increased price of coal and partly to shortage of labour in mines.

Electricity Rules—New Rules known as Indian Electricity Rules, 1937, were brought into force during the year. The new rules contained many additions to the Indian Electricity Rules 1922, since superseded. The existing installations are being brought into conformity with the requirements of the new rules.

Supervisors Examinations—During the year the Government of Bengal brought into force Rule 48 of the Indian Electricity Rules 1937 in the subdivision of Asansol and now requires that no electrical installation work including additions, alterations and repairs to existing installations shall be carried out in mines except under the direct supervision of a person holding a certificate of competency issued by it. The Bengal Government appointed a Licensing Board for the purpose of issuing Supervisors' Certificates of Competency to qualified persons and framed regulations for the purpose. Examinations for Supervisors' Certificates of Competency were held in Calcutta and at Dhanbad and several persons employed in mines have received certificates by examination. Also many Engineers in responsible positions in mines have been granted certificates in consideration of their experience and qualifications.

Mechanical Ventilators—In Appendix I Table No 10, particulars are given of the number of mechanical ventilators in use in coal mines under the Act. In 1937, 117 mechanical ventilators were in use, the number being 104 in the previous year.

Safety Lamps—In Appendix I Table No 11 particulars are given of the number of safety lamps in use in coal mines under the Act. 42,932 safety lamps were in use in 1937, as compared with 33 051 in 1936.

IRON ORE.

The production of iron ore was 1,587,362 tons, valued at Rs. 27,39,672 as compared with 1,401,530 tons, valued at Rs. 22,81,831 in 1936.

MANGANESE ORE.

There was an increase of 175,159 tons in the output of manganese ore, the figures of production being 800,280 tons, valued at Rs. 1,21,06,503, as compared with 621,830 tons, valued at Rs. 49,62,272 in 1936. The average reported value per ton of manganese ore produced rose from Rs. 7.94 in 1936 to Rs. 15.13 in 1937. The corresponding value in 1935 was 9.52. The Central Provinces Manganese Ore Company, Limited, despatched a total of 751,367 tons as follows: - 276,021 tons to Calcutta; 311,748 tons to Vizagapatam; 43,831 tons to Bombay; and 22,761 tons of other sales on f.o.b. basis. The quantity despatched by the company in 1936 was 490,050 tons so that the despatches in 1937 were greatly in excess of those in 1936. The average f. o. b. price realised in 1937 was 8.28 annas per unit. It is more than the figures of the previous year. There was a strong demand for ore of all but very low grades from March 1937 until October 1937, when demand slackened somewhat due partly to high steamer freights and partly to buyers having satisfied their requirements.

GOLD.

The output of gold in 1937 was 26 ounces which was obtained from the Manbhum district of Bihar.

CHROMITE ORE.

The production of chromite ore was 35,387 tons, valued at Rs. 5,13,451 as compared with 28,142 tons, valued at Rs. 3,91,401.

COPPER ORE.

The output of copper ore was 371,458 tons, valued at Rs. 48,69,790, as compared with 357,194 tons, valued at Rs. 40,03,200 in 1936. The whole of the production came from the mines belonging to the Indian Copper Corporation, Limited, in the Singhbhum district of Bihar. The production of refined copper amounted to 6,830 tons, as compared with 7,200 tons in 1936. The production of yellow metal sheet and circles at the rolling mills was 10,019 tons, involving the use of 6,422 tons of copper. Development of the Mosaboni and Dhobani mines is proceeding in depth.

MICA.

The quantity of mica consigned was 94,811 cwt., valued at Rs. 39,16,718, as compared with 82,077 cwt., valued at Rs. 32,33,396 in 1936. The output of dressed mica in 1937 was 103,641 cwt., as compared with 86,501 cwt. in

1936 In addition, 24,407 cwt of waste mica fit for splittings valued at Rs 91,737 were consigned from Nullore district Madras Presidency and 664 cwt, valued at Rs 210 from Ajmer Merwara district in Rajputana. The output of this kind of mica was 28,863 cwt.

The quantities of mica and splittings shipped in 1936 and 1937 are as follows —

	Cwt.	Rs.
1936	99,491	72,57,054
1937	131,425	1,16,73,944

In addition 120,191 cwt of "pattern cut" and scrap mica having a value of Rs 9,63,873 were shipped as compared with 58,250 cwt valued at Rs 8,45,219.

ROCK-SALT

The production of rock salt was 163,813 tons, as compared with 151,523 tons in the previous year.

LIMESTONE.

The reported production of limestone was 1,318,598 tons valued at Rs 13,88,468, as compared with 1,007,957 tons, valued at Rs 11,61,005 in 1936.

STONE

Returns were submitted by the owners of one hundred and nine stone mines, and the figures of production were as follows — 1,205,756 tons of igneous rock, 39,414 tons of sandstone, 39,934 tons of gravel and 30,565 tons of murrum. The total production was 1,315,569 tons, as compared with 1,338,160 tons in 1936.

CLAYS

From the twenty-six clay mines from which figures were obtained 33,332 tons of fire clay, 11,024 tons of china clay and 89,058 tons of ordinary clay were produced.

OTHER MINERALS

The production of other minerals were as follows — 15,150 tons of bauxite, valued at Rs 61,839, 7,446 tons of slate, valued at Rs 1,39,835, 23,782 tons of magnesite valued at Rs 1,40,708, 13,932 tons of gypsum, valued at Rs 36,418, 7,591 tons of barytes valued at Rs 70,635, 2,554 tons of steatite, valued at Rs 14,490, 112 tons of ochre, valued at Rs 903, 268 tons of felspar, valued at Rs 1,867, 166 tons of apatite valued at Rs 1,660, 181 tons of kaoline valued at Rs 543, and 805 tons of kyanite, valued at Rs 12,075. Small quantities of asbestos, beryl, graphite, fuller's earth, muscovite and tantalite were also produced.

SECTION III.—ACCIDENTS.

During the year 1937 at mines regulated by the Indian Mines Act, 1923, there were 208 fatal accidents which is 6 less than in 1936, and 28 more than the average number in the preceding five years.

In addition to the fatal accidents there were 1,085 serious accidents involving injuries to 1,115 persons, as compared with 978 serious accidents involving injuries to 1,011 persons in the previous year. The so-called "serious" accidents reported are those in which an injury has been sustained which involves, or in all probability will involve, the permanent loss of or injury to the sight or hearing or the fracture of any limb or the enforced absence of the injured person from work for a period exceeding twenty days. Two hundred and forty-eight persons were killed and 1,156 persons were seriously injured. The latter figure includes 41 persons injured in fatal accidents. The number of persons killed was 229 less than in 1936. 228 persons killed were men and 20 were women. In one case 9 lives; in eight cases 3 lives and in fifteen cases 2 lives were lost.

The proportion of accidents which occurred to men and women, respectively, underground, in open workings, and on the surface were as follows:—

—	No. of fatal accidents.	No. of men killed.	No. of women killed.	Death rate per 1,000 persons employed.		No. of serious accidents.	No. of men injured.	No. of women injured.	Serious injury rate per 1,000 persons employed.	
				Men.	Women.				Men.	Women.
Underground .	169	180	10	1.59	2.57	815	825	15	6.94	3.86
Open workings.	25	29	6	0.60	0.25	66	54	17	1.12	0.69
Surface . .	14	10	4	0.19	0.20	201	186	18	3.55	0.90

There was a decrease in the death rate of men employed underground, in open workings and on the surface. With respect to women there was a decrease in the death-rate underground and an increase in open workings and on the surface. The causes of the fatal accidents have been classified as follows:—

—	No. of fatal accidents.	Percentage of total number of fatal accidents.
Misadventure	136	65.39
Fault of deceased	29	13.94
Fault of fellow workmen	9	4.33
Fault of subordinate officials	17	8.17
Fault of management	16	7.69
Faulty material	1	0.48
Total	208	100.00

There was a decrease of 229 in the number of persons killed during 1937, as compared with 1936

I have analysed serious accidents and find that out of the total of 1,156 persons seriously injured 87 were permanently partially disabled and 1,069 were only temporarily disabled

In addition it was reported that 3,911 persons received minor injuries which necessitated the enforced absence from work for a period exceeding forty eight hours

Fire-damp—There were two fatal accidents by explosions or ignitions of fire damp involving the death of 2 persons

Falls of roof and side—Falls of roof and sides caused 116 fatal accidents and 190 serious accidents. As compared with the figures under this head in the previous year the total number of accidents decreased from 378 to 306, the number of persons killed increased from 141 to 148, and the number of persons seriously injured decreased from 266 to 205. In one case three lives, while in another case two lives were lost in depillaring areas, also in two cases three lives and in nine cases two lives were lost in galleries by falls of roof. The accidents by falls of sides include one in which nine persons were killed in open workings

In Shafts—There were 10 fatal accidents and 32 serious accidents in shafts, as compared with 7 fatal accidents and 21 serious accidents in the previous year

Suffocation by gases—There was one fatal accident due to suffocation by gases, involving the death of two persons

Explosives—There were 13 fatal accidents and 31 serious accidents caused by explosives. In the previous year the figures were 11 and 24 respectively

Haulage—There were 32 fatal accidents and 218 serious accidents on haulage roads. The accidents due to haulage have been classified as follows—

Classification	Fatal	Serious	Total
Haulage rope breaking	6	3	9
"	1	1	1
"	2	5	7
"	2	2	2
"	7	2	4
"	3	21	28
"	3	57	60
"	6	8	8
"	6	55	61
"	2	12	12
go	2	25	27
Crushed against tubs sides of roadways doors, etc	1	8	9
While spragging moving tubs	1	7	8
Unclassified	1	12	13
Total	32	218	250

There was an increase in the number of accidents due to breakdown in materials, there being 11 in 1937, as compared with 6 in 1936. Of the 11, 9 were due to the breakage of haulage ropes. The prolonged use of haulage ropes showing signs of extensive deterioration is to be deprecated.

The number of accidents due to unauthorised persons riding on sets was 4 in 1937, as compared with 9 in 1936. Although there is a marked improvement, stricter supervision by the subordinate underground staff and disciplinary action by managers are necessary.

There was a considerable increase in the number of accidents resulting from tubs being allowed to run uncontrolled, there being 28 in 1937, as compared with 5 in 1936. Attention is drawn to the necessity of supplying a sufficient number of suitable sprags on the loading lines and on the insistence for their regular use. Stop-blocks and catches provided at suitable points on tramlines having variable gradients would reduce this class of accident.

There was an increase in the number of accidents while tubs were being hand trammed, there being 60 in 1937, as compared with 45 in 1936. There was also an increase in the number of accidents following derailments or while re-railing tubs, there being 61 in 1937, as compared with 26 in 1936. Accidents by these causes are generally due to ignorance or carelessness of the persons involved. In re-railing tubs suitable poles should be used as levers to guard against the danger of tubs capsizing on the persons engaged in re-railing the tubs.

The number of accidents to persons resting or loitering about haulage roads or tramming levels has increased from 23 in 1936 to 27 in 1937. Attention of owners, agents and managers is drawn to my Circular No. 4 of 1931, in the hope that the recommendations contained therein will be more rigidly enforced.

The number of accidents due to persons being crushed against tubs, sides of roadways, doors, etc., has been reduced from 25 in 1936 to 9 in 1937. A little more care on the part of those involved would reduce this class of accident.

Underground Machinery.—One fatal and nine serious accidents were caused by underground machinery.

Sundries Underground.—Nineteen fatal accidents and 404 serious accidents were due to miscellaneous causes underground.

Surface Machinery.—One fatal accident and 14 serious accidents were caused by surface machinery.

Surface Railways and Tramways.—Eight fatal accidents and 110 serious accidents took place on surface railways and tramways.

Electricity.—There were 2 serious and 2 fatal accidents attributable to the use of electricity.

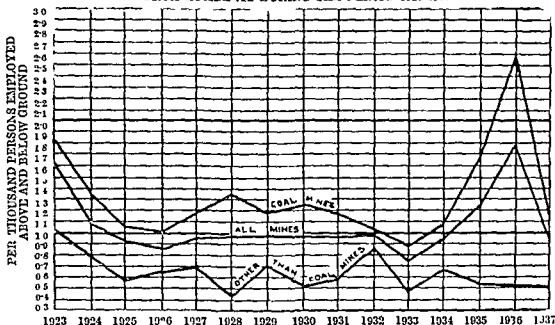
Miscellaneous on the surface.—Three fatal accidents and 75 serious accidents of this kind took place on the surface.

Accidents excluded from the statistics—Twenty four accidents causing 21 deaths were excluded from the statistics for reasons which are given in Appendix II

Death rates—The death rate per thousand persons employed above and below ground was 0.93 which was less than the rates in 1935 and 1936. The average rate for the preceding five years was 1.13. At coal mines the rate was 1.17, as compared with 2.58 in 1936. At mines other than coal mines the rate was 0.50, as compared with 0.53 in 1936.

The chart below shows graphically the variation in the death rate during the period 1923-37.

CHART SHOWING THE DEATH RATE
FROM ACCIDENTS DURING THE PERIOD 1923-1937



From the above it will be seen that the death rate has fallen considerably. The high rate in 1936 was due chiefly to an explosion in a coal mine which caused the loss of 209 lives.

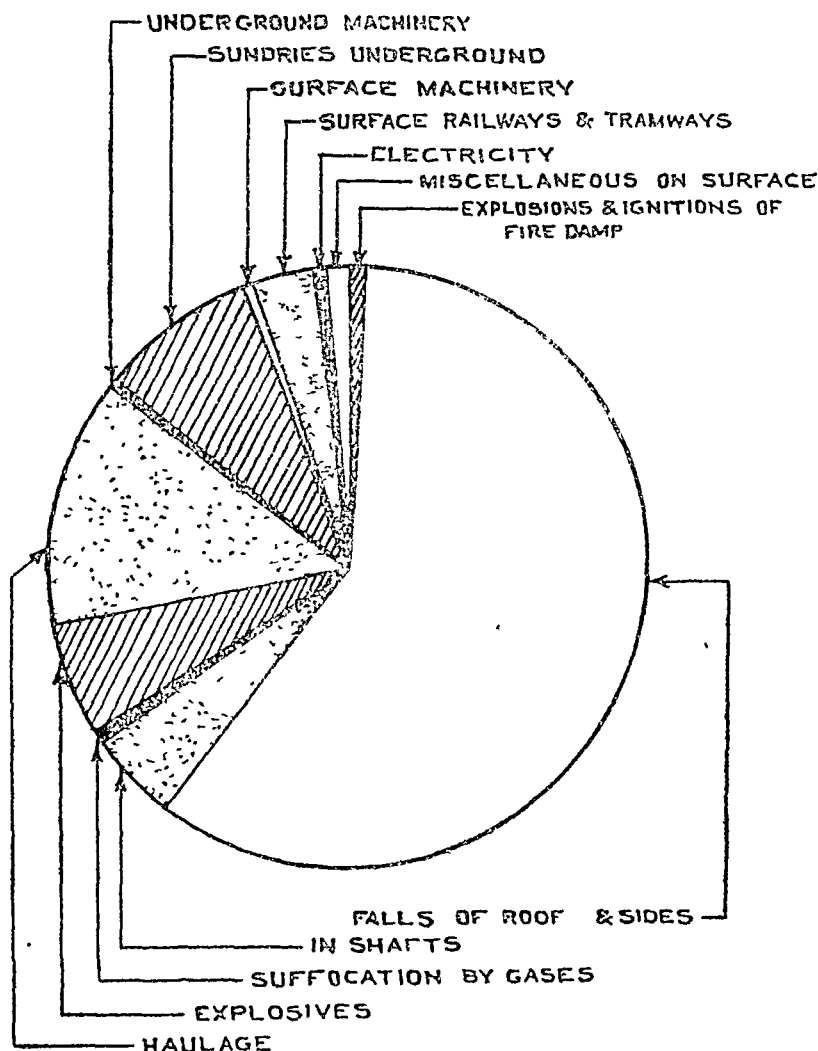
The death rate per million tons raised at coal mines was 8.95 while that of the preceding five years was 11.12.

Deaths occurring in each class of mines were as follows—200 in coal mines, 2 in iron ore mines, 12 in mica mines, 11 in limestone mines, 4 in stone mines, 8 in copper mines, 1 in a chromite ore mine, 4 in salt mines, 1 in a magnesite mine and 5 in manganese mines.

Two persons lost their lives due to explosions and ignitions of fire damp, 78 persons lost their lives by falls of roof, 70 by falls of sides, 12 in shafts, 2 by suffocation by gases, 16 by explosives, 33 by haulage, 22 by other accidents underground, 2 by electricity and 12 on the surface.

The accompanying chart shows the relative importance of the various cases of accidents in coal mines during 1937.

CHART SHOWING
DISTRIBUTION OF CAUSES OF PERSONS KILLED IN AND ABOUT COAL MINES
IN THE YEAR 1937.



A list of the fatal accidents appears in Appendix II, Table I, where each is briefly described. The details of certain accidents are reported at greater length as follows:—

FALLS OF ROOF.

No. 63.—*The Budroochuck Coal Mining Company, Limited's Budroochuck coal mine.*

(Three persons killed and one injured.)

This accident occurred on a main dip haulage road in a development district of No. 14 seam which is 25 feet thick. The haulage road passes

through a series of faults and at place of accident it was against the roof and had been made 6 feet in height. Plan No. 1 shows the place of accident.

The deceased and their companions were engaged in driving dip and rise galleries off the bottom level of the haulage road. At the end of their relay they were proceeding outbye and just as they reached the place of accident the mass of roof as indicated on the plan fell without any warning. The two assistant overmen in charge of the district stated that the roof that fell had been tested regularly and the last examination was made two hours before the accident when the roof appeared to be sound. The roof of No. 14 seam in this particular area varies considerably and on the rise and dip sides of place of occurrence supports had been set because of the unsound roof.

In spite of the fact that the roof at place of accident was considered to be sound in view of the bad roof on the rise and dip sides it is considered that supports should have been set at the junction of the galleries as a precautionary measure. The management agreed to timber systematically the junction of all galleries in this area where the roof was disturbed and likely to be unsound with a view to preventing a recurrence of this type of accident.

FALL OF SIDE

No. 45—*The Dyers Stone Lime Company, Limited's Salanya Puharhai Limestone mine*

(Nine persons killed)

This accident occurred in a limestone quarry, 220 feet long and 100 feet wide. Plan No. 2 will indicate conditions before and after the accident.

The quarry was a comparatively new one as it was opened in June 1936. The following description of the accident is given by Dr. D. Penman who enquired into the accident—

"The actual limestone deposit is overlain by a deposit of red earth and clay varying in thickness according to the position of the deposit, the slope of the beds, and the erosion that has taken place in the limestone.

"The actual limestone deposit is overlain by a deposit of red earth and clay varying in thickness according to the position of the deposit, the slope of the beds, and the erosion that has taken place in the limestone. The deposit varies within short distances both in degree and in direction. Limestone is comparatively easily dissolved by running water and as a result the deposit has been 'leached' or eroded out at intervals and these gaps filled by clay or earth in which pieces of limestone are embedded.

The number of workers employed in the quarry varied from 200 to 400 persons according to the supply of labour. The bulk of the labour was employed in carrying the limestone out of the quarry and removing the overburden. In places the limestone had to be blasted.

There were several pathways into the quarry—one on each of the north, east and west sides and other pathways on the north side. The quarry was not being extended on the south side and work in this part of the quarry

was confined to the removal of limestone from the floor of the quarry at a distance of about 15 feet from the face of the side which fell.

The south side of the quarry across a width of about 75 feet suddenly collapsed and the debris, consisting of blocks of limestone, earth and clay was debouched over practically the whole width of the quarry and for a distance of approximately 35 feet from the original face of the side at surface level. Nine persons—seven men and two women—were caught by the fall and either partially or completely buried by it. These nine persons were killed. Five bodies were recovered the same day, two were recovered on the 27th February, one on the 28th February, and one on the 2nd March.

Figure 5 shows the appearance of the place of accident after the fall and the approximate positions of the persons killed. Eight persons—five men and three women were injured. None of these persons appear to have been seriously injured and they are all expected to recover.

The accident was due to a collapse of the south side of the quarry as described. The collapse of the side was due to a number of factors as follows :—

- (a) The character of the limestone deposit. The beds of limestone are lying at an inclination of between 20 and 25 degrees to the horizontal in a northerly direction. The limestone is not massive, *i.e.*, the deposit is not homogenous throughout. It consists of layers of limestone of varying thickness interlain with thin laminae of clay. The limestone beds are also broken up to some extent by joint planes. The upper surface of the limestone deposit is irregular in shape as is shown in Figure 2, and further the amount and direction of the inclination of the beds is not constant.
- (b) There was and is a considerable thickness of red earth and clay lying on the limestone beds adding to the weight and thrust against the beds in the direction of the slope of the latter. There exists little cohesion between the earth and clay and the limestone beds.
- (c) On one side of the fall there was a well pronounced joint plane with greasy surfaces. This plane is shown in Figures 1 and 5.
- (d) On the other side of the fall the limestone had been leached out or eroded so that the thickness of the red earth and clay overburden was thicker at that side than on the side next the joint plane mentioned in (c).
- (e) There had apparently been heavy rain on the night of the 25th February—the night before the accident. This rain may have and probably did contribute to the collapse by lubricating the joint plane mentioned, the joints and bedding planes of the limestone and by softening the superficial earth and clay. The side was released by the pronounced joint plane already mentioned and by the cutting of the limestone in the deeper part of the quarry. The weight of red earth and clay pressing against the limestone caused the latter to slip with the result that there was a general sliding of the limestone downhill and a subsequent collapse of the overburden.

All the witnesses examined stated that there was no indication of a fall likely to take place. The manager stated that he was at the place at 2.30 p.m.—about an hour before the accident and did not notice anything wrong. There was no sign of any movement and no one said to him that there was

signs of an imminent fall. If the same conditions had prevailed on the north, east or west side of the quarry such a fall would not have occurred as on the north side the limestone beds dipped away from the place of work and on the east and west sides the beds of limestone lay in a horizontal direction.

Regulation 38 of the Indian Metalliferous Mines Regulations requires that "the sides of open workings shall be sloped, stepped or secured in such a manner as to prevent danger from falls of material."

There was a travelling foot path on the face of the side which fell so that at one part of the side the face was stepped twice (see Figure 4).

The foot path appeared to be of the requisite width as required by Regulation 41 A of the Indian Metalliferous Mines Regulations. But I do not consider that the foot path amounted to stepping the sides as required by Regulation 38. The foot path was sloping and while it might have constituted a suitable "step" at its beginning it did not so conform at its end and for a considerable part of its length. Moreover, the foot path did not extend over the whole length of the face but only a part of it.

The sides of the excavation were sloped only very slightly as may be seen from the sketches Figures 2 and 3 (Plan No. 2) and I do not consider them to have been adequately sloped.

The amount of stepping or sloping of the side of an excavation depends on the nature of the ground. If the ground is throughout of hard stone and not highly inclined, very little slope may be necessary to secure safety. But if the ground is soft and the deposit is in layers and highly inclined as in this case, very considerable slope or definite and frequent stepping is necessary. Such sloping or stepping had not been done.

Proceedings were instituted against the agent and the manager.

As a result of this accident a code of . . .
of the slope of the sides and the nature of
might be considered adequate, was issued . . .
No. IV, Statement No. 19) to the owners of this mine and to the owners
and agents of all other working limestone mines.

IN SHAFTS (WHILST ASCENDING OR DESCENDING BY MACHINERY)

No. 167—*The Bengal Coal Company, Limited & Bankimulla*
(Nos. 7 and 8 pits) coal mine

(Three persons killed)

This accident occurred at a shaft, 16 feet diameter and 925 feet deep at which sinking had just been finished. This shaft passes through two important seams—the Konthi and the Ponati.

and he was coughing frequently. The doctor administered smelling salts but he expired at 9 30 P M. The remaining fourteen men were removed to Dhanbad hospital at about 11 45 P M where they were kept as in patients for observation. As the condition of Akal Majhi, Dhanu Dhobi and Dhanu Routh was precarious, oxygen was administered and their condition improved under this treatment. Akal Majhi, however, died four days later but the other thirteen patients recovered.

The accident was clearly due to absorption by the deceased and the injured persons of nitrous fumes. Nitrous fumes are produced when certain nitro glycerine explosives are fired particularly if the detonation is not complete, and some of the explosive burns instead of detonating. These fumes have an extremely irritating action upon the respiratory passages and are highly poisonous. The extreme symptoms do not usually manifest themselves for several hours after exposure and during the early stages of exposure to the fumes a persons may feel ill and cough violently after which he appears to recover. Several hours later, however more pronounced symptoms make their appearance their intensity depending upon the degree of exposure to the fumes. If large quantities have been inhaled bronchitis and pneumonia may develop and death may ensue within forty eight hours. Nitrous fumes are very soluble in water.

The staff in charge of the shaft sinking was thoroughly experienced. The petty contractor had sunk no less than five other shafts. The charge man was also an experienced shaft sinker. In addition to the chargeman there was a fully qualified overman who examined the shaft before the sinkers descended after blasting but as he did not remain in the shaft for any considerable time he was not affected.

This is an unusual type of accident but in order to guard against a recurrence it is considered that artificial means of ventilation should be introduced when sinking shafts extend beyond a depth of 100 feet.

BY EXPLOSIVES

No 102 —Messrs Anandamoyee Coal Company's Khas Jhargra coal mine

(Three persons killed and two seriously injured)

This accident occurred while preparations were being made for blasting in a gallery in the middle section of No 10 seam. It appears that about 5 lb of loose gunpowder had been taken to the place. According to the evidence of the overman in charge of that part of the mine three persons were set to drill holes to blast down a stone band in the roof. Work was commenced at about 9 A M on day of accident and at about 2 A M the overman found that three holes had been drilled but the shot firer had not arrived to conduct blasting operations. When the overman visited the place later he noticed that one of the men was charging a hole and the shot firer with two other men was sitting on the floor of the gallery and a canister was placed between them. The lid of the canister had been removed and the overman saw paper casings in the form of cartridges

There were two lighted "mug lamps"—one on each side of the canister and only a short distance from it. The shot-firer was close to the canister and he was smoking a "biri".

From the evidence recorded by the officer who investigated this accident it is evident that cartridges of gunpowder were being prepared at the site of the accident. The shot-firer, who subsequently died as a result of his injuries sustained at time of accident, admitted taking loose gunpowder into the mine.

It seems that a "mug lamp" was suspended from the roof for better illumination while a hole was being charged, and that this lamp fell from the roof to a point near the canister where some loose gunpowder was ignited, resulting in the accident.

Accidents of this nature are easily avoided by exercising reasonable care and complying with the Coal Mines Regulations. Regulation 102 requires that gunpowder shall not be issued for use in blasting operations in a mine or used in a mine, except in the form of cartridges.

Criminal proceedings were instituted against the manager and the magazine-keeper.

SUNDRIES UNDERGROUND.

No. 6.—The Raneejunge Coal Association Limited's Kustore coal mine.

(Two persons killed and three injured.)

This accident occurred in No. 13 seam at a point where coal is delivered into a bunker from No. 15 seam. The coal is loaded into 15 cwt. capacity tubs in No. 15 seam and then taken to the top of a chute which consists of a vertical shaft, 6 feet diameter and 118 feet deep, between 13 and 15 seams. From the bottom of the shaft an inclined drift, 7' \times 7' and 138 feet long on a slope of 1 in 1 leads to a large bunker situated in 13 seam. The coal in the 15 cwt. tubs is delivered into the vertical shaft through a tippler and then falls into the bunker below where it is loaded into 3-ton mine cars. The Inspector of Mines, No. 1 Circle, who enquired into this accident gave the following description of the accident :—

"The bunker is a composite structure of steel plates, girders and brick-work. Sometime during the night shift of 6th-7th January it was found that a jamb had occurred in the shaft or drift and coal was not falling into the bunker after being delivered from No. 15 seam. The assistant manager was informed of this at 6 A.M. on 7th January and after reporting the matter to the manager he proceeded to No. 15 seam to arrange for water to be run into the chute in order to loosen the coal causing the jamb. Instructions had previously been sent to the staff at the bunker to stand clear until the coal was loosened. Water was run into the shaft for about fifteen minutes without result, and the assistant then stopped the water and proceeded to 13 seam in order to ascertain conditions at the bunker end. On the way he was informed that the coal had fallen away and on arriving at the bunker found coal and water falling past the slide gate which was open. The gate was closed and the water allowed to escape through the perforations in the plate. Accompanied by the head fitter the assistant then inspected the bunker. They both affirm that they found everything in order and that the side walls had

not been damaged in any way by the fall of coal. The assistant then gave orders for loading to commence and stood by until eleven mine cars, representing 33 tons of coal, had been loaded and drawn away. After giving orders for no more coal to be dumped from No 15 seam until he had an opportunity to examine the shaft and incline he left the place. Following the assistant's departure three more mine cars were loaded. As the fifteenth car was being loaded there was a sudden loud noise of coal falling into the bunker and the south wall of the bunker burst open, precipitating coal on the tram line below. There were six persons working in the vicinity, of whom only one escaped injury. Two of the remaining five were buried beneath the broken wall and coal and were killed instantly, while the other three sustained serious injuries. Following the accident it was found that about 10 to 12 tons of coal had fallen from the bunker on to the tram line. Among the loose coal was a steel girder. It appears that during the sinking of the shaft girders were fitted into the sides in order to provide scotings for a pump. Two or three of these girders were left in the shaft after the commencement of dumping operations. In my opinion the girder which was found with the coal was the cause of the coal jamming in the shaft for it is probable that the coal was held up by the girder which had fallen from its original position and was jammed at the junction of the shaft and drift."

Since the bunker had been put into use in April 1936 approximately 30 000 tons of coal had passed through it at time of accident. On at least two occasions the bunker and the shaft incline above had been filled with coal up to No 15 seam, and the bunker had proved strong enough to withstand the pressure. The Inspector of Mines considered that the coal which caused the damage amounted to about 10 tons and probably fell from a height of 128 feet down a slope of 1 in 1.

The south wall of the bunker was 24 inches thick, built of box bricks in cement and sand and erected on two 12 inches girders laid side by side. Retaining walls had also been built up to the level of the girders but they formed no support to the wall itself.

Since the accident all the girders in the shaft have been removed and the bunker strengthened. Although the exact cause cannot be for seen, it clearly indicates the necessity to keep all shafts and drifts, which are used for work of this nature, clear of all obstructions.

SECTION IV.—Prosecutions and amendments to the Act, Regulations, Rules and Orders made thereunder.

PROSECUTIONS

During the year 1937 the following prosecutions were instituted—

Two persons were prosecuted under the provisions of the Coal Mines Act, 1930, for failing to provide a registered person with a copy of the regulations, rules and orders. The first person was fined £5 and the second person was fined £10. The third person was fined £5 for failing to provide a copy of the regulations, rules and orders to a person who was not a registered person. The fourth person was fined £5 for failing to provide a copy of the regulations, rules and orders to a person who was not a registered person. The fifth person was fined £5 for failing to provide a copy of the regulations, rules and orders to a person who was not a registered person. The sixth person was fined £5 for failing to provide a copy of the regulations, rules and orders to a person who was not a registered person. The seventh person was fined £5 for failing to provide a copy of the regulations, rules and orders to a person who was not a registered person. The eighth person was fined £5 for failing to provide a copy of the regulations, rules and orders to a person who was not a registered person. The ninth person was fined £5 for failing to provide a copy of the regulations, rules and orders to a person who was not a registered person. The tenth person was fined £5 for failing to provide a copy of the regulations, rules and orders to a person who was not a registered person.

Two miners of a coal mine in the Jharia coalfield were prosecuted for working in a place in which they had not been ordered to work and for cutting coal from a pillar without authority. The case was withdrawn as the accused could not be traced.

The late manager and the assistant in-charge of the magazine of a coal mine in the Jharia coalfield were prosecuted for issuing gunpowder not in the form of cartridges and for preparing cartridges in a place that was not approved for the purpose. The former was fined Rs. 100 and the latter Rs. 50.

The owner of a coal mine in the Jharia coalfield was prosecuted for working the mine without a qualified manager; for failing to maintain reports required under Regulation 70, and for failing to maintain correctly the attendance registers. The case was withdrawn.

The owner and the manager of a coal mine in the Jharia coalfield were prosecuted for employing more women underground than the permitted percentage and for not maintaining a correct register of the persons employed underground. The owner was fined Rs. 100 and the manager Rs. 50.

The agent of a coal mine in the Jharia coalfield was prosecuted for allowing persons to work and raise coal from a prohibited area contrary to orders issued by the Inspector of Mines. He was fined Rs. 30.

The owner and manager of a coal mine in the Jharia coalfield were prosecuted for failing to fence off some galleries leading from a quarry; for failing to fence an incline; for not providing proper foot-paths in a quarry; for failing to slope the sides of the quarry to prevent danger from falls of material and for not maintaining plans of the underground workings of the mine as is required by the regulations. The owner was fined Rs. 200, and the manager Rs. 100.

The owner of a coal mine in the Jharia coalfield was prosecuted for not having properly stepped or sloped or otherwise secured the sides of the quarries and for also failing to keep fenced the top of the quarries. He was fined Rs. 50.

The agent and manager of a coal mine in the Jharia coalfield were prosecuted for failing to step, slope or secure the sides of quarry with the result that a fatal accident occurred by a fall of side. The agent was fined Rs. 500 and the manager Rs. 200.

The owner and manager of a coal mine in the Jharia coalfield were prosecuted for not issuing gunpowder in the form of cartridges; for not appointing a competent person in writing for preparing cartridges and for not providing a proper place for the preparation of cartridges. The owner was fined Rs. 50 and the manager Rs. 25.

The owner and temporary manager of a coal mine in the Jharia coalfield were prosecuted for employing women underground in contravention of regulations and for failing to appoint a person in authority underground while work was in progress. The former was fined Rs. 50 and the latter Rs. 25.

The manager and attendance clerk of a coal mine in the Raniganj coal field were prosecuted for failing to keep a correct record of the number of persons going underground, and for employing more women underground than the permitted percentage. The manager was fined Rs 50 and the attendance clerk Rs 100.

The agent, manager and register clerk of a coal mine in the Jharia coalfield were prosecuted. The agent and manager for employing women underground in contravention of the regulations and the register clerk for failing to keep a correct record of the persons working underground in the mine. The agent and manager were fined Rs 250 each and the attendance clerk Rs 30.

The owner and manager of a coal mine in the Jharia coalfield were prosecuted for failing to keep a correct record in the register of persons working underground in the mine. The owner was acquitted and the manager fined Rs 75.

For the same offence the acting manager and register keeper of a coal mine in the Jharia coalfield were prosecuted. The case was withdrawn.

The owner, manager and register clerk of a coal mine in the Jharia coalfield were prosecuted. The owner and manager for employing women underground in the mine in contravention of the regulations for failing to maintain a correct register of the persons working underground in the mine, for failing to appoint in writing some person in authority underground while work was in progress and the register clerk for failing to keep a correct record of the number of persons going underground and returning therefrom. They were each fined Rs 50.

The owner and agent of a coal mine in the Jharia coalfield were prosecuted for failing to keep a separate tracing of a surface plan for failing to keep the sides of the incline secure and for failing to fence certain inclines and inadequately fencing others and also for not fencing two air shafts and a quarry. They were fined Rs 50 each.

The owner, agent and manager of a coal mine in the Raniganj coalfield were prosecuted for employing an excessive number of female workers in the underground workings of the mine for failing to enter the names of female workers underground in the register and for failing to have available copies of the Act the regulations and rules and amendments thereto. The owner and manager were fined Rs 50 each and the agent Rs 200.

The owner, agent and manager of a coal mine in the Jharia coalfield were prosecuted for failing to keep a correct record of the inclines for failing to keep the sides of the incline secure in a manner as to prevent persons from falling down the incline up outside the office of the mine a notice in the prescribed form stating the time of commencement and of the end of work at the mine for failing to maintain a register of work persons underground, for failing to have available a stretcher at the mine for failing to maintain a separate tracing of the surface plan for failing to maintain an up to date plan of the section workings of the mine. They were fined Rs 50 each.

The three joint owners and manager of a coal mine in the Jharia coalfield were prosecuted for failing to slope, step or keep secure the sides of a quarry. They were fined Rs. 50 each.

The owner, manager, overman and attendance clerk of a coal mine in the Jharia coalfield were prosecuted; the attendance clerk for not maintaining a correct register of the work-persons and the owner and manager for employing women underground in excess of the permitted percentage. They were fined Rs. 20 each.

For the same offence the agent, manager and attendance clerk of a coal mine in the Jharia coalfield were prosecuted. The agent was fined Rs. 250, the manager Rs. 50 and the attendance clerk Rs. 100.

The receiver and manager of a coal mine in the Jharia coalfield were prosecuted for using the surface tramline which passed over unstable workings in contravention of the orders imposed by the Inspector of Mines. They were fined Rs. 30 each.

The owner, agent and register clerk of a coal mine in the Jharia coalfield were prosecuted; the owner and agent for failing to submit a written notice authorising a competent person to act as manager of the mine; for employing women underground in excess of the permitted percentage; for failing to have the required inspections made by a competent person; and the register clerk for failing to keep a correct record of the persons employed underground. The owner and agent were fined Rs. 50 each and the register clerk Rs. 25.

The two joint owners, the agent and manager, of a coal mine in the Jharia coalfield were prosecuted for failing to post a relay notice outside the office of the mine; for failing to maintain a complete surface plan of the mine; for failing to slope back properly the sides of an incline and for failing to fence an incline. The owners were fined Rs. 20 each, the agent Rs. 30 and the manager Rs. 50.

The agent, manager and register clerk of a coal mine in the Jharia coalfield were prosecuted; the agent and manager for employing women underground in excess of the permitted percentage and for allowing persons to remain underground after the end of the relay; the register clerk for failing to keep a correct register of the persons working underground. The agent was fined Rs. 100, the manager Rs. 250, and the register clerk Rs. 25.

The acting manager, the man in charge of the magazine and a miner of a coal mine in the Raniganj coalfield were prosecuted; the acting manager for permitting the use of loose gunpowder underground and for failing to see that explosives left over at the end of the relay were returned to the magazine; the man in charge of the magazine for issuing loose gunpowder to miners for use underground instead of in the form of cartridges; and the miner for using loose gunpowder underground and for failing to return to the magazine the unused gunpowder at the end of the relay. The case is still pending.

The manager and attendance clerk of a coal mine in the Raniganj coalfield were prosecuted; the attendance clerk for failing to keep a correct record of the number of persons working underground; and the manager for allowing women underground without issuing passes to them; and for em-

ploying an excessive number of women underground The manager was fined Rs 25 and the attendance clerk Rs 10

The owner of a coal mine in the Raniganj coalfield was prosecuted for failing to appoint a competent manager He was fined Rs 400

The two joint owners and the agent of a coal mine in the Pench Valley coal field were prosecuted for failing to hand over to the new owner all plans books and other records required to be kept under the Act The owners were acquitted and the agent was fined Rs 400

The owner, acting manager and register clerk of a coal mine in the Raniganj coalfield were prosecuted the owner and acting manager for employing women underground in excess of the permitted percentage and for allowing persons to work underground after the time fixed for the termination of the relay, and the register clerk for not maintaining a correct register of persons going underground The owner was fined Rs 130 the acting manager Rs 50 and the register clerk Rs 20

The manager and attendance clerk of a coal mine in the Raniganj coalfield were prosecuted, the manager for failing to maintain a correct record of the persons going underground and returning from underground daily The manager was fined Rs 100 and the attendance clerk Rs 50

The owner and manager of a china clay mine in the Bhagalpur district were prosecuted for allowing women to carry clay from the underground workings They were both acquitted

The agent manager and attendance clerk of a coal mine in the Raniganj coalfield were prosecuted, the agent and manager for employing an excessive number of women in the underground workings of the mine the attendance clerk for failing to maintain a correct record of persons at work underground The agent was fined Rs 250 the manager Rs 125 and the attendance clerk Rs 25

The owner of a coal mine in the Jharia coalfield was prosecuted for permitting persons to go underground in contravention of written orders from the Inspector of Mines, for permitting women underground in excess of the number permitted, for employing a child in the underground workings of the mine for failing to maintain a correct record of the persons working underground without a qualified manager and for continuing underground work while work was being

The manager, attendance clerk and night shift sirdar of a coal mine in the Raniganj coalfield were prosecuted the manager for employing an excessive number of female workers underground, the attendance clerk for failing to keep a correct record of the number of persons going underground, and the night shift sirdar for sleeping while on duty The manager and attendance clerk were fined Rs 25 each and the sirdar Rs 10

The owner of a coal mine in the Jharia coalfield was prosecuted for employing persons to work in a prohibited area in contravention of orders from the Inspector of Mines He was fined Rs 25

The owner, overman and attendance clerk of a coal mine in the Jharia coalfield were prosecuted; the owner for employing an excessive number of women underground; for failing to authorise a competent person to act as manager and for failing to arrange for the inspection of underground workings by a competent person; the overman for absenting himself from duty while work was in progress in the mine and for failing to make the inspections required; and the attendance clerk for failing to maintain a correct record of the persons at work underground. The owner was fined Rs. 25 and the other two Rs. 10 each.

The owner, manager and register clerk of a coal mine in the Jharia coalfield were prosecuted; the owner and manager for employing an excessive number of women underground; for failing to arrange for a person in authority to be constantly underground while work was being carried on and for failing to keep fenced a quarry which was not in use or course of working; and the register clerk for failing to maintain a correct record of the number of persons working underground. The owner was fined Rs. 200, the manager Rs. 50 and the register clerk Rs. 20.

The manager and blasting mistry of a mica mine in the Nellore district were prosecuted; the former for not ordering the blasting mistry back to his working place when he found that he was on the surface, and the latter for not being present when miners were drilling a relieving hole after a misfired shot had occurred. The manager was fined Rs. 50 and the blasting mistry Rs. 25.

The agent and manager of a limestone mine in the Jubbulpore district of the Central Provinces were prosecuted for failing to slope, step or secure the sides of a quarry in such a manner as to prevent danger from falls of side. The agent was fined Rs. 1,000 and the manager Rs. 750.

Two prosecutions against an agent and a late owner were instituted for failure to submit annual returns within the prescribed date. They were fined Rs. 25 each.

Information was received of the following prosecutions instituted by mine officials against subordinate staff:—

A shot-firer of a coal mine in the Pench Valley coalfield was prosecuted for firing a shot in a split gallery without giving sufficient warning or fencing off the other workings. He was fined Rs. 30.

An engine driver employed at a coal mine in the Pench Valley coalfield was prosecuted as he was found sleeping whilst on duty. He was fined Rs. 20.

An underground pump khalassie of a coal mine in the Raniganj coalfield was prosecuted for lighting a wood fire in the pump room. He was fined Rs. 40.

AMENDMENTS TO THE INDIAN MINES ACT AND TO THE REGULATIONS, RULES AND BYE-LAWS MADE UNDER THE ACT.

In Notification No. M-1055, dated the 27th January 1937, issued by the Government of India, Department of Industries and Labour, certain further amendments to the Supplementary Coal Mines (Temporary) Regulations, 1936, were published. The notification is reproduced in Appendix IV, Statement No. 3

In Notification No M 1051 dated the 27th January 1937, issued by the Government of India Department of Industries and Labour, further amendments were made in Appendix I to the Schedule to the Notification of the Government of India in the Department of Industries and Labour, No M 1051 dated the 1st October 1935. The notification is reproduced in Appendix IV, Statement No 4.

In Notification No M 966 dated the 30th January 1937 issued by the Government of India Department of Industries and Labour, certain further Temporary Regulations were issued. They are reproduced in Appendix IV, Statement No 5.

In Notification No M 1045 dated the 1st February 1937, regulations prohibiting the employment of women underground in mines were issued. The notification is reproduced in Appendix IV, Statement No 6.

In Notification No M 1075 dated the 25th February 1937, issued by the Government of India Department of Industries and Labour, further amendments were made in the Schedule to the notification of the Government of India in the Department of Industries and Labour, No M 1051, dated the 1st October 1935. The notification is reproduced in Appendix IV, Statement No 7.

In Notification No 453 VII M 7/37 Com, dated the 13th March 1937, the Government of Bihar in exercise of the powers conferred by clause (a) of Section 30 of the Indian Mines Act, 1923 (IV of 1923) issued rules for the constitution of Mining Boards for both coal and other than coal mines. The notification is reproduced in Appendix IV, Statement No 8.

In Notification No M 1055 dated the 17th June 1937, issued by the Government of India Department of Industries and Labour, all coal mines in Bengal Bihar, the Central Provinces and Orissa were exempted for a period of three months from 1st July 1937, from the provisions of clause (j) of Section 29 of the said Act to the extent to which regulations made there under prohibited the entry of women into underground workings for purposes of employment. This exemption was subject to the conditions that the total number of women employed in the underground workings of any mine on any day did not exceed 5 per cent of the total number of persons so employed. The notification is reproduced in Appendix IV, Statement No 9.

In Notification No M 966 dated the 10th July 1937, issued by the Government of India Department of Industries and Labour certain further temporary regulations were issued. They are reproduced in Appendix IV, Statement No 10.

In a press Communique, dated the 10th September 1937, issued by the Government of India Department of Industries and Labour, the employment of women underground in coal mines was totally prohibited with effect from the 1st October 1937. The communique is reproduced in Appendix IV, Statement No 11.

In notifications Nos 227 3314 XIII of 1936 and 228 3314 XIV of 1937 dated the 25th January, 1937, and No 5-001 M 5 1937—Com dated the 15th July 1937 the Governments of the Central Provinces and Berar and the Government of Orissa made certain amendments to their rules. The notifications are reproduced in Appendix IV, Statements Nos 12 and 13.

Act No. XXIX of 1937.—An Act further to amend the Indian Mines Act, 1923, came into force on the 3rd December 1937. This is reproduced in Appendix IV, Statement No. 15.

In Notification No. P. 2, dated the 15th December 1937, issued by the Government of India, Department of Mines, a list of "Permitted" explosives and a list of approved types of shot-firing apparatus were issued. The notification is reproduced in Appendix IV, Statement No. 16.

By the end of the year bye-laws under Section 32 of the Act had been established at six hundred and thirteen coal mines and twenty-two mines other than coal. Amended Bye-laws were established in four hundred and fifteen coal mines. Bye-laws for the treatment of coal-dust had also been established in forty-four coal mines.

During the year seven circular letters were issued to owners, agents and managers of coal mines. They are reproduced in Appendix IV, Statements Nos. 17 to 23.

SECTION V.—GENERAL REMARKS.

UNDERGROUND FIRES.

In my reports for the years 1932, 1933 and 1935 reference has been made to fires at several collieries and the precautionary measures taken to prevent the spread of these fires.

At the Khas Jharia group of mines "blanketting" work was done to prevent any further extension of the fire towards Jharia town and the Jharia-Pathardih main line of the East Indian Railway. Donations by the Raja of Jharia and the Jharia Mines Board of Health and the valuable assistance given by Rao Bahadur D. D. Thacker of Jharia have enabled the protective works in the vicinity of Jharia town to be continued.

In my Annual Report for the year 1933, reference was made to an outbreak of fire at the Kusunda group of collieries which traversed an area of old workings in several seams and threatened the stability of the Kari river due to the old workings beneath and in the vicinity thereof being on fire. Several large concerns which undertook protective measures at great cost to safeguard the river and adjoining mines continued to flush "muttee" and sand through boreholes in the river bed. Practically the whole of the old workings in Nos. 11-12 seams beneath the river have been completely stowed and the stowing of galleries in No. 13 seam in proximity to the river has been commenced. It is anticipated that these protective measures will be successful.

Due to the shallow depths, the contiguity and great thickness of some of the seams liable to spontaneous combustion and the fact that no provision was made when developing some of the old mines for isolating areas liable to spontaneous heating, the difficulties in working such mines where it is necessary to adopt precautionary measures for dealing with and isolating fires have been greatly enhanced in recent years.

EXCLUSION OF WOMEN FROM UNDERGROUND WORKINGS IN MINES

In February the Government of India issued regulations under the Indian Mines Act prohibiting the employment of women underground. It was intended that the regulations should come into force with effect from the 1st July 1937, but due to representations being made by various bodies Government decided to postpone for three months the date for the total exclusion of women from the underground workings in coal mines in Bengal, Bihar, the Central Provinces and Orissa provided that the prescribed percentage for the year 1937 was not exceeded. On the 22nd September 1937, Government issued a press communique stating that no total prohibition of the employment of women underground was to be put into operation with effect from the 1st October 1937 by the Labour Associations in the event of the exclusion of women from the underground workings at rates of two to three annas per

tub according to the capacity of the tub, were given at most collieries. There were no demonstrations on the 1st October when women were excluded from the mines. In a few isolated cases small batches of miners refused to go down the mine because they could not take their women. About a fortnight after the prohibition of female labour from underground there was a partial strike at a large colliery in the Jharia coalfield employing about 3 000 workers daily. About 300 underground workers stopped work until their rates had been increased. Other workers at the mine became affected. After three or four days increased rates were given and normal conditions were resumed. There were no other incidents in the coalfields and work was resumed in a normal way after the Durga Puja holidays. Many of the women excluded from underground workings have been found employment on screening plants preparing inert dust for treating coal dust, on general surface work and in quarries.

HEALTH AND SANITATION

The Asansol Mines Board of Health held four special and eleven ordinary meetings during the year. Dr L. Sen was Chief Sanitary Officer of the Board throughout the year except for a period of six weeks in May and June when Dr S. Roy, Bacteriologist, officiated in his place. The year 1937 was healthier than the preceding three years. There was a decline in deaths for all ages and for infants while the upward trend in the birth rate noticed in 1936, was maintained in 1937. The death rate among the colliery population was considerably lower than that of the general population. Both the upper and lower limits of monthly death rate in the mining population were lower than that of the previous year. The rise in fever mortality in September and the following months coincided with the seasonal increase of malaria.

Epidemic cholera was conspicuous by its absence during the year. The majority of cases were of a sporadic nature. There were 272 cases and 85 deaths during the year, as against 434 attacks and 140 deaths in 1936.

the incidence rate in collieries was 1.5 per 1,000, while that in villages was 0.18. Due precautions were taken by way of isolating the cases, segregation of contacts, adequate disinfection and protection of water supply. The day-to-day carried out in a strict question of an outbreak and also during the course of the disease. The total number of persons inoculated was 20,526, in which half were miners and their family members.

This year was free from any case of small-pox. Only 92 cases of small-pox were reported in 1925 in 1926. The majority of cases occurred during the 1st and 2nd periods. Vaccination and revaccination have been the chief means of fighting the disease. Particular attention was paid to the colliery population, especially married labour, among whom a large number of cases were reported. Altogether 61,666 vaccinations were performed, of which 16,731 were primary and 44,935 were re-vaccinations.

The number of Health Visitors for maternity and child welfare work was increased from six to seven. Each Health Visitor is in charge of an area extending over 4 square miles, including collieries and villages. 1,022 reports of illnesses were visited at their home by the Health Visitors. 38 cases were controlled by them and 84 by trained day-nurses alone. Training supervisory while 772 consultations were done by trained centres and an intensive course of training was held for three months followed by a period of retraining over a month. Certificates are being introduced in order to bring home to the general public the necessity of being introduced and certified day-nurses and an improved day-nurses' examinations were followed up by the Health Visitors in course of their post-natal visits as against 1,290 in the previous year. The four infant welfare centres maintained by the Board were attended by 179 infants and 169 toddlers and the attending mothers were taken through a course of health talks.

A Baby Week was organised by the Asansol Health and Baby Welfare Society in eight centres, the activities consisting of a Health Exhibition, Baby Show and Health Competitions. Adequate training was arranged for boys in first-aid and for girls in first-aid, home-nursing and mother-according to the syllabus laid down by the St. John Ambulance Association. Inter-school and inter-colliery ambulance competitions were arranged training the candidates up to the senior first-aid standard. A junior colliery competition was confined to manual labourers below the grade of sidemen.

A special survey of the incidence of leprosy among school children was undertaken. The percentage of leprosy was found to be 2.3 among students examined in 165 schools, as against the incidence rate of 1.5 per cent. in the general population. 3,402 cases received treatment in Leprosy clinics out of 5,332 known cases. A leper day was successfully organised by the Leprosy Relief Association and the total collection of flags, etc., came to Rs. 11,330. There is a staff of four Leprosy Relief and thirteen trained assistants maintained jointly by the Board and the Leprosy Relief Association.

The Board carried out anti-malaria operations in three extensive areas, resulting in a decline of malaria over these areas.

a campaign in Toposi area has been limited in extent due to the presence of a large number of subsidences and abandoned pits and the restricted nature of the campaign itself

During the year 1937, the Jharia Mines Board of Health held twelve ordinary, six special meetings and one joint meeting with the Jharia Water Board. The estimated population of the Settlement was 555 573 persons. The death rate was 16.50 per thousand as compared with 16.10 in the previous year. There were 27 cases of suspected cholera with 14 deaths as compared with 64 cases with 39 deaths in the previous year. The number of deaths on collieries from cholera was 9 as compared with 14 in the previous year. The total number of anti-cholera inoculations performed was 2 900. During the year there were 418 cases of suspected small pox with 6 deaths as compared with 3 733 cases with 329 deaths in the previous year. Eight hundred and eighty nine samples of food were analysed in the Board's laboratory and prosecutions were ordered in all cases of adulteration. With a view to improve the colliery housing the five years housing programme enforced by the Board last year continued during the year. Subjects chosen for propaganda work were leprosy, maternity and child welfare, general hygiene and sanitation and ventilation in mines. As in previous years all leprosy relief work continued to be managed by the Dhanbad and District Leprosy Relief Association which organised a bazaar on the 17th April 1937 and was successful in raising Rs 14 750 on the occasion. The District Board, the Dhanbad Municipality and the Jharia Mines Board of Health continued their annual grants during the year. Dr M. Wardman, Chief Leprosy Officer, joined her post on the 16th May 1937. The opening ceremony of the Leprosy Hospital at Tetulmuri was performed by His Excellency Sir Maurice Garnier Hallett, K. C. S. I., C. I. E. I. C. S., the Governor of Bihar, on the 24th October 1937.

During the year 815 new patients were treated in the different clinics the total number of treatments given being 28 711.

The Jharia Water Board continued to function throughout the year. The total quantity of water supplied to the Jharia colliery during the year 1937 was about 475 million gallons as under —

	Gallons
1. Collieries	391 230 000
2. Non-colliery premises (domestic and non-domestic supply)	33 210 000
3. Bazaars	51 100 000
Total	475 540 000

INSPECTIONS MADE BY MEDICAL OFFICERS AS EX OFFICIO INSPECTORS OF MINES

During the year many reports were received from provincial and district Medical Officers of Health concerning health and sanitation. All the reports were dealt with and most of the recommendations were carried out.

STATISTICS OF RAINFALL.

Statistics of rainfall in the eastern coalfields have been recorded as follows :—

	Rainfall in inches.	
	1937.	1936.
Jharia Coalfield—		
Jealgora	49·37	61·78
Topchanchi	56·18	69·80
Raniganj Coalfield—		
Asanrol	56·53	59·84
Dishergarh	58·93	57·70
Giridih Coalfield—		
Giridih	60·75	77·37

AMBULANCE WORK.

Classes in First-Aid were held at twenty-four centres in the Jharia coalfield and also in the mining areas of Singhbhum. Three hundred and eighty students attended these classes and 282 certificates were awarded. In the Raniganj coalfield similar classes were held at seven centres. One hundred and forty seven students attended these classes and 105 certificates were awarded. A St. John's Ambulance Shield was competed for among teams from various collieries in the Raniganj coalfield. The shield was won by Sitalpur No. 1 team (Messrs. Bengal Coal Company, Limited) the runners up being Samla No. 1 team (Messrs. Martin & Company). In addition to the above competition which is only open to persons holding the St. John's Ambulance Certificate, another competition was inaugurated during the year. This competition was for the Lang-Cunningham Memorial Shield. Persons not holding the St. John's Ambulance Certificate were allowed to compete, the object being to stimulate interest among the more illiterate workers.

I desire to express my appreciation of the valuable work done by lecturers and examiners during the year in the two major coalfields and in other mining districts.

MINING BOARDS IN BENGAL, BIHAR AND THE CENTRAL PROVINCES.

The Bengal Mining Board held two meetings during the year. Among the subjects discussed at the meetings and by correspondence were :—
 (a) Temporary Regulations for coal mines ; (b) amendments to the Supplementary Coal Mines (Temporary) Regulations ; (c) Regulations for prohibiting the employment of women underground in mines ; (d) exemption of certain mines from the operation of the Indian Mines Act, 1923 ; (e) amendments in the Schedule to the Notification of the Government of India, in the Department of Industries and Labour, No. M-1051, dated the 1st October 1935, regarding exemption ; (f) postponement of the regulations for

prohibiting the employment of women underground in mines for a further period of three months, (g) amendments to the Indian Coal Mines Regulations, 1926, and the Indian Metalliferous Mines Regulations 1926, (h) further amendments to the permanent Indian Coal Mines Regulations 1926, rendered dangerous Coal Mines Regulations to the Indian

Coal mines Regulations 1926, relating to control of first working and section working. The non official members of the Board were Messrs F W Manley, A L Ojha and Rai Sahib Upendra Nath Mondal

The Bihar Mining Board for coal mines did not meet during the year. The subjects dealt with by correspondence were —(a) Amendments to the Indian Coal Mines Regulations 1926 and the Indian Metalliferous Mines Regulations, 1926, (b) further amendments to the permanent Indian Coal Mines Regulations, 1926, (c) proposed amendment of the Coal Mines Regulations to introduce certification of shot firers, and (d) amendments to the Indian Coal Mines Regulations, 1926, relating to control of first working and section working. The non official members of the Board were Messrs D M Archibald, A L Ojha, Khetra Nath Sen Gupta and J Mackie

The non official members of the Mining Board for mines other than coal mines were Messrs G A Young F G Percival, V K B Pillai and J W Kendall

The Central Provinces Mining Board held no meetings during the year. The subjects dealt with by correspondence were —(a) amendments to the permanent Indian Coal Mines Regulations, 1926, (b) proposed amendments of the Coal Mines Regulations to introduce certification of shot firers and (c) amendments to the Indian Coal Mines Regulations, 1926, relating to control of first working and section working. The non official members of the Board were Messrs D M Nargolwalla L H Bartlett, O B C, G Llewelyn, Shamsher Bahadur Verma and Kunjilal Tulsiram Mehta

BOARD OF EXAMINERS

Five meetings of the Board of Examiners were held during the year. The non official members of the Board were Messrs J Mackie, N N Sarkar and L A Jacobs for the first four meetings. Mr Jas E Phelps was appointed a member of the Board for the last meeting, *vice* Mr J Mackie who had resigned. The local examiners appointed were Messrs W B Penman and S C Ghosh for coal mine managers' first class certificates, Messrs James Thomson and R Hearn for coal mine managers' second class certificates and Mr J Mackay for the examination for coal mine surveyors' certificates. Mr A Young, Inspector of Mines (Offg) was also an examiner and acted as Secretary for the coal mine managers' first and second class examinations, Mr N Barracrough was also an examiner and acted as Secretary for the coal mine surveyors' examination

Ten first class certificates of competency to manage a coal mine were granted in lieu of British certificates of the same class. At the examinations for coal mine managers' certificates held at Dhanbad in February and March,

81 candidates sat for first class certificates and 56 for second class certificates. Seven certificates of the first class and twenty-two of the second class were granted. One duplicate surveyors' certificate of service was granted. At the examination for coal mine surveyors' certificates of competency held at Dhanbad in November, 55 candidates attended the examination—nine of them were successful.

Five hundred and eighty-one persons were examined for coal mine sirdars' certificates of competency and 158 certificates were granted. Out of 829 holders of sirdars' certificates examined in gas-testing, 549 were successful and their certificates were duly endorsed to that effect. 866 holders of sirdars' certificates appeared for re-examination in eyesight and hearing. 832 were successful and their certificates were duly endorsed. Under Coal Mines Regulation 43 the certificates of ten sirdars were suspended for periods varying from three to six months. During the year 29 duplicate sirdars' certificates and 80 duplicate dies were issued.

MINING EDUCATION.

At the Indian School of Mines, the number of students on the roll at the beginning of the session was 68, as compared with 59 at the beginning of the previous session. The results of the Diploma and Certificate examinations held in July 1937, were as follows:—

Diploma or Certificate.	No. of candidates.	No. of successful candidates.
Diploma of Associate-ship in Geology	3	2 (Class I). 1 (Class II).
Diploma of Associate-ship in Mining Engineering	9	3 (Class I). 6 (Class II).
Certificate in Geology	1	1
Certificate in Metal Mining	5	4
Certificate in Coal Mining	11	11

The mine surveying camp was pitched at Bhulanbararee colliery during the month of November 1937, and 48 students were in attendance. Visits and tours of inspection were paid to the mica mines of Kodarma, the copper and iron mines of Singhbhum and to many local collieries and places of geological interest. At the examinations held for coal mine managers' certificate held at Dhanbad in February, two former students obtained the first class colliery managers' certificate and five obtained the second class colliery managers' certificates. Two students obtained the surveyors' certificate of competency. In November 1937, the total number of students on the roll was 77.

In the Department of Mining and Metallurgy at the Benares Hindu University there were 95 students at the beginning of the session, as compared

with 80 at the beginning of the previous session. One student passed the final examination for the degree of B.Sc. in Mining and sixteen in Metallurgy. Up to date the total number of mining graduates is 29 and the total number of metallurgy graduates 59. Immediately after qualifying practically all the graduates found suitable employment. A mine surveying camp was arranged at Barakar in December and an underground survey conducted at Pegunia colliery in the Raniganj coalfield. Tours of inspection were paid to mines at Kodarma, the copper mines at Mosaboni and to a number of iron collieries in the Raniganj and Jharia coalfields. At the examinations for mine managers' certificate held at Dhanbad in February, three students were successful at the second class colliery managers' examination.

No advanced classes were held in the Raniganj coalfield during the year. Such classes, however, continued to be held under the auspices of the Government of Bihar at Jharia and Sijua in the Jharia coalfield. The number of students attending the classes at these two centres was 75 in the previous year. Fifteen of the third year students attended the final examinations and eight were successful. In the previous year 10 courses of lectures were delivered in the vernacular in the Raniganj coalfield in Benval and in the Jharia coalfield. There were eight centres in the Raniganj coalfield for this course. In the Jharia coalfield there were six centres. A total of 285 classes in gas testing were also held at 15 centres in the Raniganj coalfield and at Jharia in the Jharia coalfield. 100 of colliery sirdars and shot firers in gas testing. 100 were enrolled for these classes in the Raniganj coalfield and 48 in the Jharia coalfield. Special classes in mine surveying for the examination for mine surveyers' certificates of competency were held from the middle of August to November.

SCIENTIFIC AND TECHNICAL

(a) Mining, Geological and Metallurgical

During the year the name of the

The total membership of the Institute at the annual meeting held on the 1st of December 1924 were 101. The general meeting were held on the 1st of December 1924. Limited's Engineering Works, Limited's Dishwah, inspected the operations of the Limited's works at V. Wagon Company, Limited's Metallurgical Laboratory and the Power Station and Steel Works by Mr. J. P.

Three issues of the Transactions were published. The Government of India prize was awarded to Mr. W. Gilbert for his paper entitled "Some Aspects of the Ceramic Industry"; the Institute gold medal to Mr. E. R. Gee for his paper, "The Economic Geology of the Northern Punjab, with notes on adjoining portions of the North-West Frontier Province"; the Institute silver medal to Mr. W. Gilbert for his above-mentioned paper; and two Institute bronze medals to Dr. J. Sanjana and Mr. R. A. MacGregor for their respective papers on "Phenomena within the plastic range of Coals" and "Deterioration of Steel under Service Stresses". The Pickering medal, presented by the Institute for the best student in mining at the Indian School of Mines, was awarded to Mr. I. S. Jain.

(b) *The Geological, Mining and Metallurgical Society of India.*

The total membership including subscribers at the close of session 1936-37 was 178. In addition to the annual general meeting, ten ordinary general meetings were held. Nine meetings were held in the Geological laboratory, Presidency College, Calcutta, and one meeting in the Indian School of Mines, Dhanbad. Fifteen original papers dealing with various aspects of geology were read and discussed. During the year parts 3 and 4 of Volume VIII and parts 1 and 2 of Volume IX of the Quarterly Journal of the Society and one bulletin on "Coal Conservation" were published. During the year seven excursions to the following places were arranged:—National Iron and Steel Company, Limited, (Howrah); Bata Shoe Factory, Batanagar; Bharat Glass Works, Belgharia; Pottery Works, Belgharia; Peat Beds, Belgharia; Hukumchand Electric Steel Works, Ballygunj, Calcutta; and Loyabad Colliery Rescue Station, Jharia coalfield.

(c) *The National Association of Colliery Managers (Indian Branch).*

The number of members of the National Association of Colliery Managers, Indian Branch, at the end of the year was 90. Some of the subjects dealt with by the Council during the year were:—(1) the questionnaire of the Coal Mining Committee. Mr. R. J. Potheary and Mr. J. Brook, as representatives of this Association, were orally examined by the Coal Mining Committee; (2) examination of the Bihar Government Notification relating to the registration of work-persons; (3) proposed bye-laws promulgated under the Bengal Mining Settlement Act by the Asansol Mines Board of Health for the prevention and control of epidemic diseases; (4) representations to the Chief Inspector of Mines in India on the question of the stoppage of mine ventilating fans; (5) recommendation to the Government of India that all women should be excluded from the underground workings in mines; (6) deputation to the East Indian and Bengal Nagpur Railways with the object of bringing about closer co-operation between colliery and railway staffs in the working of colliery sidings. Mr. M. M. Mukherjee was joint representative of the National Association of Colliery Managers, Indian Branch, and the Indian Mine Managers' Association on the Asansol Mines Board of Health; Mr. R. J. Potheary represented the Association on the Health and Baby Welfare Central Committee, Asansol. Mr. J. Curley represented the Association on the Asansol Leprosy Relief Committee; Mr. J. T. Caldwell represented the Association on the Dhanbad Cemetery Committee and Mr. V. C. Durham on the Mining Education Advisory Board.

(c) *The Indian Miners Association.*

This Association is registered under the Indian Trade Union Act and has its head office at Jharia. This association is affiliated with the National Trades Union Federation, Bombay. The membership is given as over 4,000. The rates of subscription vary from one to four annas per month, according to the scale of pay. The association has conducted meetings and lantern lectures on sanitation, hygiene and temperance, etc. Assistance has also been rendered by the association in compensation claims and wage disputes.

COAL MINING COMMITTEE.

In my last report reference was made to the appointment of the Coal Mining Committee by the Government of India in their Resolution No. M-955, dated the 29th October 1936, and the terms of reference were given.

The report of the Committee was published in May 1937. It is of great value both as a comprehensive presentation of the conditions now obtaining in the coal mining industry in India and as furnishing a basis for the further consideration of the problems which these conditions create. The recommendations of the Committee were summarised in the final chapter of the report. The Government of India have already taken action on a number of these recommendations, while the more important proposals of the Committee relating to stowing in coal mines are engaging their attention.

VISITORS TO THE COALFIELDS.

His Excellency Sir Maurice Hallett, K.C.S.I., C.I.E., I.C.S., visited the Jharia coalfield in October. Inspections of underground workings were made at East Ena and Kustore collieries. At East Ena His Excellency was received by Rao Bahadur D. D. Thacker, Managing Director. At Kustore an inspection of a portion of the underground workings and a visit to the hospital and workshops were arranged. A surface inspection was also made of the fire areas at the Kari Jore. During the course of His Excellency's stay in Jharia coalfield visits were also paid to the Charitable Hospital and the Indian School of Mines at Dhanbad. His Excellency formally opened Dr. G. C. Ghosh's Memorial Leprosy Hospital at Tetulmuri.

The Hon'ble Sir Muhammad Zafrullah Khan, Kt., Bar-at-Law, Railway and Commerce Member of the Government of India, paid a visit to the Kargali and Bokaro Joint Collieries.

Mr. Jagat Narain Lal, Parliamentary Secretary to the Revenue Minister, Bihar, visited the Jharia coalfield in November to make preliminary enquiries into labour conditions in mines. On 25th November he inspected the underground workings in a coal mine and on the 26th November he attended a meeting of representatives of owners and labour.

OFFICIAL DUTIES, 1937.

Dr. D. Penman was Chief Inspector of Mines. He was on leave from 13th May to 12th November.

Mr. W. Kirby, Inspector, No. 1 Circle, was on leave up to 26th March and officiated as Chief Inspector of Mines from 13th May to 12th November.

Mr G S Cameron Inspector of Mines held charge of No 2 Circle throughout the year

Mr N Barraclough Inspector of Mines was on deputation to the Coal Mining Committee up to the 10th April and held charge of No 1 Circle from 13th May to 12th November

Mr H M Mitra Electric Inspector of Mines was on leave from 11th June to 31st July

Mr N G Chatterjee Junior Inspector of Mines, officiated as Inspector up to 26th March vice Mr Kirby granted leave

Mr H K Chatterjee Junior Inspector of Mines was on duty throughout the year

Mr A Young Junior Inspector of Mines officiated as Inspector up to 5th April vice Mr N Barraclough deputed to the Coal Mining Committee and was on leave from the 6th April to 21st October

Mr S S Grewal Assistant Inspector of Mines, was promoted to be a Junior Inspector from 2nd March

Mr V S Chopra Assistant Inspector of Mines was on leave from the 23rd January to 6th February

Mr G S Jabbi was appointed to be an Assistant Inspector from the 5th March vice Mr Grewal promoted to be Junior Inspector and was on duty till the end of the year

The number of coal mines worked during the year was 604 which is 100 more than in the previous year. The number of metalliferous (including stone etc) mines at work was 1321 as compared with 1469 in 1936

During the year 1230 mines were inspected many of them being inspected several times. 3246 separate inspections were made. The cause and circumstances of nearly all fatal accidents and serious accidents of importance and all complaints of breaches of regulations and rules were investigated. Many inspections were made at the invitation of mine owners, Superintendents and Managers desirous of obtaining advice on safety matters. In the major coalfields a large proportion of the time of the Inspectors is occupied in investigating cases of actual or threatened damage to dwellings and roads by reason of the underground working of coal mines in dealing with underground fires and in examining protective works against the risk of inundation. In addition a large number of inspections of the sanitary conditions at mines were made by medical officers as *Ex officio* Inspectors of Mines.

Orders were issued and withdrawn as follows —

Section Regulation or Rules	Orders issued	Orders withdrawn
Under Section 19 (1)	2	4
Under Section 19 (2)	44	14
Under Section 19 (1A)	50	2

Exemptions, partial or complete, and permissions were granted and withdrawn as follows :—

Regulation.	Number of cases.	Number withdrawn.
Under Coal Mines Regulation 53	4	—
Under Coal Mines Regulation 76	2	—
Under Coal Mines Regulation 88	1	—
Under Coal Mines Regulation 116	1	1
Under Coal Mines Regulation 123	1	2
Under Coal Mines Regulation 136	1	—
Under Temporary Coal Mines Regulation 13 (1) . . .	3	—
Under Supplementary Temporary Coal Mines Regula- tion 3.	3	—
Under Metalliferous Mines Regulation 74	1	—

Information was received of twelve outbreaks of fire underground, eight of which were new occurrences and four from old fire areas.

The number of original cases under the Land Acquisition (Mines) Act, 1885, at the end of 1937 stood at 735, thirteen of which were cases dealt with during the year. There were seventeen applications of modifications of restrictions and two complaints of violations of restrictions, all of which were dealt with. The Act applies to Bengal and Bihar and Orissa only. In other provinces where Government owns the minerals Local Governments were advised as to the restrictions necessary in cases where mine owners sought permission to work minerals beneath railways, villages, etc.

I have the honour to be,

Sir,

Your most obedient servant,

W. KIRBY,

Chief Inspector of Mines in India.

APPENDIX I.**Statistics of Mines and Minerals.****Table No. 1.**

APPENDIX

STATISTICS OF MINES

Table
Number of workers and output of minerals during the

Province.	District and Mineral field.	Average number of								
		Underground.							Females.	Total Males and Females.
		Total Output.	Overmen and Sirdars.	Coal-cutters.	Males.			Total Males.		
					Loaders.	Other skilled labour.	Other unskilled labour.			
Assam	Khasi and Jaintia Hills	Tons 2,735	4	10	5	1	1	21	...	CO 21
	Lakhimpur, Makum Coalfield	218,488	73	318	311	294	315	1,211	...	1,211
	Naga Hills, Nazira	22,427	10	40	28	49	59	188	...	188
	Total	243,650	87	268	344	344	375	1,418	...	1,418
Baluchistan	Quetta-Pishin, Sor Range Coalfield.	4,362	7	46	54	1	...	108	...	108
	Sibi, Khost Coalfield	6,282	10	52	72	5	3	142	...	143
	Total	10,624	17	98	126	6	3	250	...	250
Bengal	Dankura Raniganj Coalfield	1,713	2	7	4	...	3	16	...	16
	Birbhum	2,054	1	11	14	1	2	29	...	29
	Burdwan	6,524,053	894	14,016	6,660	3,946	7,532	33,047	1,352	34,399
	Total	6,527,820	897	14,034	6,687	3,947	7,527	33,093	1,352	34,444
Bihar	Manbhum— Raniganj Coalfield (part of)	574,397	111	1,611	591	390	793	3,502	117	3,619
	Jharia	9,479,775	1,272	15,831	10,870	5,021	8,084	41,038	1,752	42,810
	Hararibagh— Jharia Coalfield (part of)	121,455	16	208	116	36	35	413	10	423
	Bokaro	2,309,170	60	916	625	236	608	2,445	85	2,530
	Giridih	674,794	146	3,043	656	108	632	4,575	148	4,723
	Karanpura	510,162	24	449	223	163	217	1,066	45	1,111
	Banchi— Karanpura Coalfield (part of)	15,166	3	34	28	11	12	88	3	91

DIX I.

AND MINERALS

No 1.
year 1937 at mines under the Indian Mines Act.

persons employed daily in and about the mines

Open workings								Total Underground and Open workings.	Surface						Grand Total.
Males							Males					Females	Total Males and Females.		
Overmen and Boremen	Coal-cutters	Loaders	Other skilled labour	Other unskilled labour	Total Males	Females	Total Males and Females		Clerical and supervising staff	Skilled labour	Unskilled labour			Total Males	
A.L.															
1	3	5	6		15	3	23	1 234	46	167	181	394	147	541	1 775
1	3	5	6		15	3	23	160	13	26	43	80		96	276
								108							108
								143	1	2	8	11		11	153
								250	1	2	8	11		11	261
2	7			3	12	4	16	32	3	9	1	13		13	44
16	118	17	32	174	306	122	428	30	2	2	2	6	3	9	38
17	125	1	23	137	319	126	444	34 827	1 624	3 242	6 803	11 628	4 543	16,168	50 995
								34 888	1 578	3 253	6 805	11 640	4 543	16,189	61 027
11	140	30	43	212	341	189	530	4 149	200	419	500	1 179	613	1,793	6 941
137	1 085	604	273	1 317	3 685	1 808	5 493	43 503	* 000	4 536	11 251	17 917	6 823	24,700	73 *03
7	43		20	21	63	4	178	501	49	07	188	313	128	441	1 002
43	2 699	854	204	895	4 600	2 100	6 710	9 240	383	523	1 379	* 305	305	2 470	11 710
8	4		2	6	23	3	18	4 730	89	148	705	852	478	1 326	8 166
1	340	78	238	449	1 111	307	1 418	2 529	65	202	375	642	149	791	3 320
1	5	3	1	1	11	2	13	104	6	10	31	48	22	70	174

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province.	District and Mineral field.	Total Output.	Average number of persons employed						
			Underground.					Females.	Total Males and Females.
			Males.						
			Foremen and Matos.	Miners.	Other skilled labour.	Other unskilled labour.	Total Males.		
Baluchistan	Quetta Pishin . . .	Tons 45	...	...	...	...	...	...	...
	Zhel . . .	27,164	4	106	...	...	110	...	110
	Total . . .	27,209	4	106	...	...	110	...	110
Bihar . . .	Singhbhum . . .	7,678	...	...	...	...	...	...	...
Bombay . . .	Ratangiri . . .	500	...	...	...	...	...	...	...
"	Grand Total (Chromite Ore) for 1937.	35,387	4	106	...	...	110	...	110
	Grand Total of preceding year.	28,142	3	45	...	...	48	...	48
	Difference . . .	+7,245	+1	+61	...	...	+62	...	+62
Bihar . . .		Tons						COPPER	
	Singhbhum . . .	371,458	9	443	...	1,165	1,617	...	1,617
	Total of preceding year.	357,194	3	417	...	1,102	1,522	...	1,522
	Difference . . .	+14,264	+6	+26	...	+63	+95	...	+95

DIX I—*contd.*AND MINERALS—*contd*No. 1—*contd.*year 1937 at mines under the Indian Mines Act—*contd*

daily in and about the mines

Open workings							Total Underground and Open workings	Surface						Grand Total
Males					Females	Total Males and Females		Males				Females	Total Males and Females	
Foremen and Mates	Miners	Other skilled labour	Other unskilled labour	Total Males				Clerical and supervising staff	Skilled labour	Unskilled labour	Total Males			
ORE														
1	12			13		13	13							13
10	202	2	15	220		220	330	4	4	156	164		164	503
11	214	2	15	232		232	352	4	4	156	164		164	516
41	398	23	12	434	474	808	898	13	8	5	26	11	37	935
1		1		14	4	17	17	1			1		1	18
53	612	37	27	720	428	1 148	1 267	18	12	161	191	11	202	1 469
54	552	78	21	700	394	1 103	1 151	11	5	119	125	2	127	1 311
-1	+6	-41	+6	+20	+34	+54	+116	+7	+7	+42	+56	-14	+42	+153
ORE														
							1 617	52	303	838	1 193	402	1 595	3 213
							1 522	33	245	679	966	300	1 366	2 8 8
							+95	+13	+55	+159	+227	+17	+239	+334

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province.	District and Mineral field.	Total Output	Average number of persons employed						
			Underground.						
			Males.					Females.	Total Males and Females.
Foremen and Mates.	Minors.	Other skilled labour.	Other unskilled labour.	Total Males.					
		Cwt							MI
Bihar	Bhagalpur .	923	3	63	1	10	77	...	77
	Gaya . . .	20,055	84	1,285	304	1,203	2,876	...	2,876
	Hazaribagh . .	61,108	768	6,818	1,252	2,735	11,573	...	11,573
	Manbhum . . .	246	4	18	6	22	50	...	50
	Monghyr .	3,616	31	224	53	194	502	...	502
	Total	85,978	890	8,408	1,616	4,164	15,078	...	15,078
Madras	Nellore* . . .	15,647	55	570	562	406	1,593	...	1,593
	Nilgiris . . .	121	2	18	2	10	32	...	32
	Total	15,768	57	588	564	416	1,625	...	1,625
Rajputana	Ajmer-Merwara* .	1,895	14	183	12	72	281	...	281
	Grand Total (Mica) for 1937.	103,641	961	9,179	2,192	4,652	16,984	...	16,984
	Grand Total of preceding year.	86,604	779	9,053	1,575	4,443	15,850	...	15,850
	Difference . . .	+17,137	+182	+126	+617	+209	+1,134	...	+1,134

* 28,863 cwt. of waste mica useful for

DIX I—contd.

AND MINERALS—contd.

No. 1—contd.

year 1937 at mines under the Indian Mines Act—contd

daily in and about the mines

Foremen and Mates	Open workings					Total Undergound and Open workings	Surface					Grand Total		
	Males				Females		Males				Females		Total Males and Females	
	Miners	Other skilled labour	Other unskilled labour	Total Males			Clerical and supervising staff	Skilled labour	Unskilled labour	Total Males				
CA														
6	37		53	96	41	137	214	7		7	2	9	223	
14	411	74	204	703	29	732	3 606	190	310	73	578	85	663	4,271
194	2,139	182	570	3 085	149	3 234	14 807	575	757	626	1,968	408	2,374	17,181
20	26	18	49	111	51	162	212	12	4	2	41	10	54	266
33	241	73	219	566	60	635	1,137	18	183	27	268	127	395	1 532
267	2 834	315	1,005	4 561	330	4 900	19,978	847	1,254	764	2,865	630	3,495	23,473
29	202	278	334	843	757	1,600	3,193	132	209	304	715	907	1,702	4,600
							32	9	6	15	1	16	4	
29	203	278	334	843	757	1,600	3,220	132	209	304	715	907	1,710	4,600
30	345	10	7	401	42	443	724	21	47	13	10	17	11	11
3.6	3,401	642	1 435	5 605	1,133	6 632	22 221	724	5,100	1,400	2,221	1,000	3,221	24,442
214	2,222	560	835	3,631	594	4 225	14 807	575	757	626	1,968	408	2,374	17,181
+112	+1,170	+62	+601	+1,974	+224	+2,198	+19,978	+847	+1,254	+764	+2,865	+630	+3,495	+23,473

plitting was also raised

APPEN
STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province.	District and Mineral field.	Total Output.	Average number of persons employed						
			Underground.					Females.	Total Males and Females.
			Males.						
			Foremen and Mates.	Miners.	Other skilled labour.	Other unskilled labour.	Total Males.		
Panjab .		Tons.							SA
	Jhelum . . .	123,197	20	415	15	140	633	6	644
	Mianwali . . .	14,392	...	98	...	...	96	...	98
	Shahpur . . .	26,224	5	81	12	37	135	9	144
	Grand Total (Salt) for 1937.	163,813	34	594	57	186	871	15	886
	Grand Total of preceding year.	151,523	34	600	56	206	896	32	928
	Difference . . .	+12,290	...	-6	+1	-20	-25	-17	-42
Madras .		Tons.							MAGNE
	Salem . . .	32,782	...	...	...	...	...	...	...
	Total of preceding year.	12,966	...	...	...	...	...	...	...
	Difference . . .	+10,816	...	...	...	...	...	...	...

DIX I—*contd*AND MINERALS—*contd*No. 1—*contd.*year 1937 at mines under the Indian Mines Act—*contd*

daily in and about the mines

Open workings							Total Underground and Open workings	Surface						Grand Total
Males					Females	Total Males and Females		Males				Females	Total Males and Females	
Foremen and Mates	Miners	Other skilled labour	Other unskilled labour	Total Males				Clerical and super- vising staff	Skilled labour	Unskilled labour	Total Males			
LT														
1		11		12	-	12	656	1	63	236	329		320	976
							98	-		63			63	166
						1	144	1	9	57	67		67	211
1		11		12	-	13	898	2	92	361	367		455	1 833
1	10		225	236		236	1 164	1	77	147	167	1	226	1 340
-	-10	+11	-225	-234		-223	-266	+1	+23	+214	+230	-1	+229	-37
SITE														
17	332		721	1 070	310	1 380	1 380	19	83	74	176	8	184	1,564
16	236		490	742	147	889	889	18	108	10	136	9	145	1 034
+1	+96	-	+231	+825	+163	+491	+491	+1	-25	+64	+40	-1	+39	+530

DIX I—*contd.*AND MINERALS—*contd*No. 1—*contd.*year 1937 at mines under the Indian Mines Act—*contd*

daily in and about the mines

Open workings								Surface							Grand Total.
Males					Females	Total Males and Females	Total Underground and Open workings	Males				Females	Total Males and Females		
Foremen and Mates	Miners	Other Skilled labour	Old or unskilled labour	Total Males				Clerical and supervising staff	Skilled labour	Unskilled labour	Total Males				
TITE															
1	7	9	18	35	18	53	53	1			1		1	54	
2	4			6	6	12	12	2		24	26	58	62	74	
3	11	9	18	41	24	65	65	3		24	27	36	63	128	
1	10		31	47	50	103	137	1		17	18	30	48	185	
							6					2	2	8	
							8							8	
							14					2	2	16	
		33	2	32		32	49		36	6	41		41	90	
4	26	39	51	120	60	200	265	4	26	46	86	68	154	419	
5	35	55	76	174	78	252	318	3	51	21	75	8	83	401	
-1	-12	-16	-25	-54	+2	-52	-53	+1	-15	+25	+11	+60	+71	+18	
TITE															
4	63	18	28	113	5	118	118							118	

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province	District and Mines	No. of Workers	Average monthly output of minerals employed						
			Percentage					Total Monthly Production	
			Value						
			Gold Value	Silver Value	Copper Value	Iron Value	Coal Value		
Punjab	Gurgaon	1,915	..	..	..	..	..	SLA
	Rajpura	4,725	..	..	..	..	..	..
	Total	6,640	..	..	..	..	..	..
	Grand Total (State) for 1927.	1,41	..	..	..	..	..	..
	Grand Total of pre- ceding year.	7,015	..	..	..	..	..	..
	Difference	+1,91	..	..	..	..	..	..
	Total	1,41	..	..	..	..	..	LIME
Bihar	SLA	215,007	..	..	..	..	..	..
Central Pro- vinces.	Bilaspur	91,210	..	..	..	..	..	..
	Jubbulpore	495,785	..	..	..	..	..	..
	Total	586,995	..	..	..	..	..	..
Madras	Koimbatore	126,131	..	..	..	..	..	..

APPEN
STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province.	District and Mineral field.	Total Output.	Average number of persons employed						
			Underground.						
			Males.					Females.	Total Males and Females.
			Foremen and Matees.	Miners.	Other skilled labour.	Other unskilled labour.	Total Males.		
LIME									
Punjab	Attock . . .	Tons. 223,132	..	..	..	..	..	..
	Jhelum . . .	8,67	..	..	..	..	..	..
	Mianwali . . .	28,320	..	..	..	..	..	..
	Total . . .	250,129	..	..	..	..	..	..
	Grand Total (Limestone) for 1937	1,318,698	..	..	..	..	..	..
	Grand Total of preceding year	1,007,957	..	..	..	..	..	..
	Difference . . .	+ 310,641	..	..	..	..	..	..
STONE (CHIEFLY IGNEOUS)									
Bengal . . .	Birbhum . . .	Tons. 88,112	..	..	..	..	..	..
Bihar . . .	Gaya . . .	33,495	..	..	..	..	..	..
	Monghyr . . .	37,055	..	..	..	..	..	..
	Sonthal Parganas . . .	337,108	..	..	..	..	..	..
	Shahabad . . .	43,579	..	..	..	..	..	..
	Singhbhum . . .	32,555	..	..	..	..	..	..
	Total . . .	488,792	..	..	..	..	..	..
Bombay . . .	Bombay . . .	163,218	..	..	..	..	..	..
	Bombay Suburban . . .	18,930	..	..	..	..	..	..
	Kaira . . .	2,850	..	..	..	..	..	..
	Surat . . .	86,268	..	..	..	..	..	..
	Thana . . .	22,316	..	..	..	..	..	..
	Total . . .	310,602	..	..	..	..	..	..

DIX I—contd.

AND MINERALS—contd.

No. 1—contd.

year 1937 at mines under the Indian Mines Act—contd

daily in and about the mines

Open workings						Total Underground and Open workings	Surface						Grand Total		
Males					Females		Total Males and Females	Males				Females		Total Males and Females	
Foremen and Males	Miners	Other skilled labour	Other unskilled labour	Total Males				Clerical and super- vising staff	Skilled labour	Unskilled labour	Total Males				
STONE—contd															
5 1 5	39 50	3 8	237 2 200	384 41 205	7	254 41 212	384 41 212	3	4	-	7	7	381 48 212		
11	60	11	339	630	7	637	637	3	4	7	7	644			
236	1,107	536	2,505	4,384	2,640	7,024	7,024	214	250	693	1,186	230	1,425	8,449	
277	1,007	493	2,129	3,916	2,794	6,710	6,710	174	238	242	674	109	873	7,582	
+ 9	+40	+43	+376	+468	-154	+314	+314	+60	+1	+401	+512	+40	+852	+868	
ROCK)															
1	238	5	81	325		325	325	32	54	263	319	132	481	806	
13	233	154	10	407	165	572	672		3		3		3	575	
4		145		149	82	231	231	1	3	7	11		11	242	
79	774	431	200	1,674	246	1,820	1,820	97	187	405	689	239	928	2,748	
			224	224	53	277	277			-				277	
12	169	24	276	603	352	856	855	2	95	10	47	0	52	907	
166	1,193	754	802	2,657	898	3,755	3,755	100	228	422	750	214	994	4,749	
3	137	55	123	322	..	322	322	26	3	21	50	41	91	413	
2	10	..	34	34	.	34	34	2	16	42	61		60	94	
11	23	63	204	300	216	516	516	5	4	61	69		69	81	
5			113	113	69	182	187	5		16	25	..	25	541	
										5	5		5	192	
20	169	118	479	766	285	1,071	1,071	45	23	141	209	41	290	1,321	

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Average number of persons employed

Province.	District and Mineral field.	Total Output	Underground.						
			Foremen and Maters.	Miners.	Males.			Females.	Total Males and Females.
					Other skilled labour.	Other unskilled labour.	Total Males.		
STONE (CHIEFLY IGNEOUS									
Central Provinces.	Akola Nagpur	Tons	7,732
		8,021	.	...	.	.	...	...
	Total	15,753	..	...	..	..	...	...
Madras	Chingleput	59,586	.	...	.	...	...	...
	East Godavari	9,305	...	...	...	...	...	...
	Guntur	53,370	..	...	..	..	...	...
	Kistna	7,199	.	...	.	...	...	...
Total	129,460	...	...	...	...	...	...
Punjab	Jhelum	61,074	...	...	...	...	...	...
	Sheikhupura	8,149	..	...	...	...	...	...
	Total	69,523	...	...	...	...	...	...
Sindh	Sukkur	30,127	...	...	...	...	...	...

DIX I—*contd.*AND MINERALS—*contd*No. 1—*contd*year 1937 at mines under the Indian Mines Act—*contd*

daily in and about the mines

Open workings						Total Underground and Open workings	Surface						Grand Total	
Males					Females.		Total Males and Females	Males				Females		Total Males and Females
Foremen and Matos	Miners	Other skilled labour	Other unskilled labour	Total Males				Clerical and supervisors in staff	Skilled labour	Unskilled labour	Total Males			
ROCK)— <i>cont'd</i>														
2		3	60	53	35	68	68	1		1		1	69	
			100	102	100	202	202	1		1		1	203	
2		3	130	155	135	290	290	2		2		2	292	
			449	22	471	338	809	19		82	101	55	965	
			62		62	16	78						78	
27	100	103	47	197	17	214	214		2	13	5	20	234	
				100		100	100	5	...	50	50	10	165	
27	100	634	69	830	371	1,201	1,201	24	2	145	171	70	1,442	
5	68		106	179	7	186	186	3	5	16	24		210	
6	23	7	26	63		62	63	2	6	26	34	34	96	
11	91	7	132	241	7	248	248	5	11	42	58	58	6	
9	61	38		111	22	133	133	1		1	2		135	

STATISTICS OF MINES

Table
Number of workers and output of minerals during the

Province.	District and Mineral field.	Total Output.	Average number of persons employed						
			Underground.						
			Males.					Females.	Total Males and Females.
			Foremen and Mates.	Miners.	Other skilled labour.	Other unskilled labour.	Total Males.		
United Provinces.		Tons.	STONE (CHIEFLY						
	Allahabad	52,819	..	...	..	...	...	...	...
	Banda	2,150	..	..	..	...	...	...	...
	Jhansi	18,618	..	..	..	...	...	...	...
	Total	73,587	...	..	..	...	...	...	...
	Grand Total (Stone) for 1937.	1,205,756	..	..	..	...	...	...	..
	Grand Total of preceding year.	1,189,662	..	..	..	...	...	...	...
	Difference	+16,194	...	..	...	...	...	...	...
Bihar		Tons.	SAND						
	Shahabad	39,414	...	...	...	...	...	...	...
	Total of preceding year.	33,734	..	...	...	...	...	...	...
	Difference	+5,680	...	...	...	...	...	...	...

DIX 1—*contd.*AND MINERALS—*contd.*No. 1—*contd.*year 1937 at mines under the Indian Mines Act—*contd.*

daily in and about the mines

Open workings							Total Underground and Open workings	Surface							Grand Total
Males					Females	Total Males and Females		Males				Females	Total Males and Females		
Foremen and Miners	Miners	Other skilled labour	Other unskilled labour	Total Males				Clerical and supervising staff	Skilled labour	Unskilled labour	Total Males				
IGNEOUS ROCK)— <i>contd.</i>															
17	4	70	370	461	155	616	616	10			11		11	627	
		3	12	15	11	26	26			1	1		1	27	
9	182			191	20	211	211	6	33	47	91	57	148	359	
26	186	73	380	667	196	863	863	16	39	43	103	57	160	1019	
204	1,041	1,632	1,020	5,772	1,004	7,676	7,676	220	357	1,062	1,644	511	2,155	10,054	
123	1,276	1,490	1,281	6,970	1,002	8,272	8,272	207	511	1,082	1,830	524	2,352	10,654	
+81	-2,235	+342	+814	-923	+602	-321	-321	+18	-112	-20	-194	+20	-174	-370	
STONE															
12	43	23	51	138	57	195	195		6	15	43	0	52	247	
14	48	61	60	203	41	244	244	1	1	26	28	10	38	252	
-2	-6	-23	-20	-65	+16	-49	-49	-1	+27	-11	+16	-1	+14	-25	

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province.	District and Mineral field.	Total Output.	Average number of persons employed							
			Underground.					Total Males and Females.		
			Males.							Females.
			Foremen and Mates.	Miners.	Other skilled labour.	Other unskilled labour.	Total Males.			
Bihar . . .	Singbhum . . .	Tons 13,936	GRA Figures included							
Bombay . . .	Thana . . .	325	Figures included							
Madras . . .	Chingleput . . .	25,603	Figures included							
	Grand Total(Gravel) for 1937.	33,931	Figures included							
	Grand Total of preceding year.	21,378	...	...	...	...	...	...	...
	Difference . . .	+15,556	...	...	...	...	...	...	...
Bombay . . .	{ Bombay Subur- ban. Thana . . .	Tons. 1,700 26,382	MU Figures included							
	Total . . .	28,082	Figures included							
United Pro- vinces.	Jhansi . . .	2,383	Figures included							
	Grand Total (Murum) for 1937.	30,465	...	...	...	...	...	...	...
	Grand Total of preceding year.	18,653	...	...	...	...	...	...	...
	Difference . . .	+11,812	...	...	...	...	...	...	...
Rajputana . . .	Ajmer-Merwara . . .	Tons. 7	...	...	...	...	...	...	MUSCO
	Total of preceding year.	21	...	...	...	...	...	...	...
	Difference . . .	-14	...	...	...	...	...	...	...

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province.	District and Mineral field.	Total Output.	Average number of persons employed							
			Underground.							
			Males.					Females.	Total Males and Females.	
			Foremen and Mates.	Miners.	Other skilled labour.	Other unskilled labour.	Total Males.			
Bengal	Burdwan	Tons 7,916	..	...	...	...	...	...	...	FIRE
Bihar	Manbhum	4,280	..	.	...	...	...	...	...	...
Central Provinces.	Jubbulpore	21,106	...	...	...	...	...	...	...	...
	Grand Total (Fire-clay) for 1937.	Tons. 33,332	...		...	...	...	...	...	...
	Grand Total of preceding year.	22,817	...	.	...	...	...	...	...	...
	Difference	+10,515	..	..	...	...	...	...	...	...
										CHINA
Bihar	Bhagalpur	Tons. 1,227	4	15	...	39	58	...	...	58
	Singhbhum	6,180	..	...	...	...	...	...	...	...
	Total	7,407	4	15	...	39	58	...	...	58
Delhi	Delhi	3,538	2	31	9	6	48	...	...	48
Madras	Nellore	79	...	...	...	...	...	...	...	...
	Grand Total (China Clay) for 1937.	11,024	6	46	9	45	106	...	...	106
	Grand Total of preceding year.	14,268	4	33	...	52	89	...	...	89
	Difference	-3,244	+2	+13	+9	-7	+17	...	...	+17

DIX I—*contd.*AND MINERALS—*contd.*No. 1—*contd.*year 1937 at mines under the Indian Mines Act—*contd.*

daily in and about the mines

Open workings							Total Underground and Open workings	Surface						Grand Total		
Males					Females	Total Males and Females		Males				Females	Total Males and Females			
Foremen and Mates	Miners	Other skilled labour	Other unskilled labour	Total Males				Clerical and supervising staff	Skilled labour	Unskilled labour	Total Males					
CLAY																
2	60	8		70	38	108	108	3		0	33	15	38	146		
1	33	23	10	67	18	85	85							85		
6	5		140	150	152	312	312	3		26	29		29	341		
9	93	31	159	297	206	503	503	6		46	52	15	67	572		
6	4		140	150	156	311	311	3		28	29	2	31	342		
+3	+94	+31	+14	+142	+50	+194	+194	+3		+20	+23	+13	+36	+230		
CLAY.																
	4		37	41	19	60	116	1				11	12	130		
16	86	3	118	223	344	567	567	28	25	127	180	190	375	942		
16	90	3	105	264	363	627	685	29	25	127	180	206	387	1 73		
	21			21		21	69							69		
	8	2		10	2	12	12					1	1	13		
16	1 4	5	150	295	365	660	766	29	25	127	181	207	388	1,154		
22	72	20	144	258	276	534	623	29	31	140	200	184	384	1 007		
-6	+47	-16	+11	+37	+89	+126	+143		-6	-13	-19	+23	+4	+47		

DIX I—*contd.*AND MINERALS—*contd*No. 1—*contd.*year 1937 at mines under the Indian Mines Act—*contd*

daily in and about the mines

Open workings							Total Underground and Open workings	Surface						Grand Total	
Males					Females	Total Males and Females		Males				Females	Total Males and Females		
Employment and Males	Miners	Other skilled labour	Other unskilled labour	Total Males				Clerical and super- vising staff	Skilled labour	Unskilled labour	Total Males				
AY.	3	38		9	50	22	72	72		3		3		3	75
for Limestone															
	3	38		9	50	22	72	72		3		3		3	75
			16		16	16	32	32		3		3		3	35
	+3	+38	+16	+9	+34	+6	+40	+40							+40
TES															
		28	15	30	73	71	149	149	5		11	16		16	165
								6			2	2	10	12	18
		28	10	35	73	71	149	150	5		13	18	10	28	163
			6	7	13		13	18	2		2	4	8	12	30
		</													

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province	District and Mineral field.	Total Output.	Average number of persons employed						
			Underground.						
			Foremen and Mates.	Males.				Females.	Total Males and Females.
				Miners.	Other skilled labour.	Other unskilled labour.	Total Males.		
Madras	Trichinopoly	Tons. 166				APA Figures included			
	Total of preceding year.	125	...	...	...	...	...	...	...
	Difference	138	...	...	...	...	...	...	...
		Cwt.							ASBES
Rajputana	Ajmer-Merwara	9	...	...	...	...	...	...	...
Central Provinces	Chanda	Tons. 63	1	4	...	...	5	...	OCH 5
	Jubbulpore	49	...	...	...	...	...	...	Figures included
	Grand total (Ochre) for 1937.	112	1	4	...	...	5	...	5
	Grand total of preceding year.	70	...	7	...	...	7	...	7
	Difference	+42	+1	-3	...	...	-2	...	-2
Central Provinces	Jubbulpore	Tons. 181	...	...	...	...	...	...	KAO
	Total of preceding year.	...	...	...	...	...	...	...	...
	Difference	+181	...	...	...	...	...	...	...

STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province.	District and Mineral Sold	Tons Output	Average number of persons employed						
			Underground.						
			Persons and Value	Miners	Value of Mineral	Output of Mineral	Total Males	Females	Total Males and Females.
		Total							KYA
Delhi	Mughalpur	800	-	-	-	-	-	-	-
		Total							GYP
Madras	Triplicore	1,597	-	-	-	-	-	-	-
Poor	Belgaum	12,000							Figures included in
	Grand Total GYP for 1927	13,597							-
	Grand Total of preceding year	7,450							-
	Difference	+6,147							-
		Total							BAU
Bombay	Kaira	2,570							-
Central Provinces	Jubbulpur	9,558							-
	Total	12,128							-
		Total							BER
Hajputana	Ajmer-Merwara	27							-
	Total of preceding year	00	1	-	12	-	13	-	13
	Difference	-72	-1	-	-12	-	-13	-	-13

DIX I—*contd.*AND MINERALS—*contd.*No 1—*contd.*year 1937 at mines under the Indian Mines Act—*contd.*

daily in and about the mines

Open workings						Total Underground and Open workings	Surface						Grand Total	
Males					Females		Males				Females	Total Males and Females		
Foremen and Mates	Miners	Other skilled labour	Other unskilled labour	Total Males			Critical and supervising staff	Skilled labour	Unskilled labour	Total Males				
NITE														
3			52	50	62	117	117	1		20	21		21	138
SUM			19	19	22	41	41	1	5	11	17	33	53	94
those for Salt														
			19	19	22	41	41	1	5	11	17	36	53	94
			12	12	11	23	23	1	4	9	14	119	133	106
			+7	+7	+11	+18	+18		+1	+2	+3	-83	-80	-62
NITE														
2	123	3		128	51	182	182		1	9	10	1	11	193
5	-	17	34	56	102	158	158	2		11	13		13	171
7	123	20	34	184	156	340	340	2	1	20	23	1	24	364
YL														
3	35	1		39	2	41	41	2	1		3		3	44
4	60			69		69	69		2		2	2	4	86
-1	-30	+1		-30	+2	-28	-41	+2	-1		+1	-2	-1	7

APPEN
STATISTICS OF MINES

Table

Number of workers and output of minerals during the

Province.	District and Mineral field.	Total Output.	Average number of persons employed						
			Underground.					Females.	Total Males and Females.
			Males.						
			Foremen and Mates.	Miners.	Other skilled labour.	Other unskilled labour.	Total Males.		
Rajputana	Ajmer-Merwara	Tons. 268	...	...	...	...	...	...	FELS ...
	Total of preceding year.	686	...	...	...	...	...	...	...
	Difference	-418	...	...	...	...	...	...	...
Central Provinces.	Jubbulpore	Tons. 45							FULLERS Figures included
	Vigagapatam.	Tons. 10	...	...	...	...	...	...	GRAPH ...
	Total of preceding year.	237	...	...	...	...	...	...	...
	Difference	-227	...	...	...	...	...	...	...
Bihar	Monghyr	Cwts. 11	2	4	2	2	10	...	TANTA 10
	Grand Total (Metal-liferous Mines) for 1937.	...	1,048	10,947	2,234	6,232	20,511	15	20,526
	Grand Total of preceding year.	...	866	13,192	2,344	8,418	24,920	32	24,952
	Difference	...	+ 82	-2,245	-60	-2,186	-4,409	-17	-4,426
	Grand Total (All Minerals) for 1937.	...	...	...	...	...	118,920	3,887	122,807
	Grand Total of preceding year.	...	...	...	...	...	123,423	7,301	130,724
	Difference	...	...	...	...	...	-4,503	-3,414	-7,917

DIX I—*concl'd*AND MINERALS—*concl'd*No 1—*concl'd*.year 1936 at mines under the Indian Mines Act—*concl'd*

daily in and about the mines

Open workings							Total Underground and Open workings	Surface						Grand Total
Males					Females	Total Males and Females		Males				Females	Total Males and Females	
Firemen and Mates	Miners	Other skilled labour	Other unskilled labour	Total Males				Clerical and super- sizing staff	Skilled labour	Unskilled labour	Total Males			
PAR														26
3	10		12	25		25		1		1		1		26
4		9	14	27		27	1			1		1		28
-1	+10	-9	-2	-2		-2	-1	+1						0
EARTH in those for Limestone														
ITE														14
	16	0	8	24	1	27	27							27
	-16	0	-6	-22	+4	-20	-20		+2	+2	+5	+7		13
LITE														29
	8	1		9	8	17	27	1	1	0			2	29
1 60	1 341	3 830	10 586	37 501	19 661	57 162	7 708	2 007	3 649	7 62	13 081	5 720	19 001	96 709
1 367	16 128	5 806	11 907	45 233	15 123	60 356	85 313	1 991	4 935	8 031	1 50	6 106	21 363	166 606
+395	-4 787	-6 004	-1,321	-7 71	+4,538	-3 19	-7 605	+10	-1230	-706	-1 076	-386	-2 362	-2 967
				43 268	244 9	77 747	195 554				53 387	19 917	7 301	267 838
				52 100	17 171	69 271	199 917				51 43	18 273	69 606	269 593
				-3 864	+7 303	+3 534	+4 03				+974	+1,634	+2,608	-1 33

Table

Statement of total mining population in Coal Mines in British India

Name of Province.	Name of Coalfield or District	Total number attending work.								Total Males and Females.
		Males.				Females.				
		Under-ground.	Open work-ing	Surface.	Total.	Under-ground.	Open work-ing.	Surface.	Total.	
		Tons.								
Assam	Khosi and Jaintia.	39	.	40	79	...	...	54	54	133
	Makum . .	1,385	13	405	1,803	...	13	109	122	1,925
	Nazira . .	301	...	169	470	...	...	...	...	470
	Total .	1,725	13	614	2,352	...	13	163	176	2,528
Baluchistan	Sor Range .	45	2	.	47	...	...	...	...	47
	Khost . .	142	4	8	154	...	...	...	...	154
	Total .	187	6	8	201	...	...	...	...	201
Bengal . .	Raniganj .	51,277	421	12,117	63,815	...	223	6,199	6,422	70,240
Bihar	Raniganj .	6,648	456	1,950	9,054	...	341	1,075	1,416	10,500
	Jharia . .	68,619	5,731	23,111	97,461	...	3,893	10,646	14,539	112,000
	Bokaro . .	3,790	6,894	2,345	13,029	...	3,945	685	4,630	17,659
	Giridih . .	5,301	22	779	6,102	...	11	677	688	6,790
	Karanpura .	1,946	1,871	994	4,811	...	542	310	852	5,663
	Jainty . .	318	...	116	434	...	...	17	17	451
	Total .	86,622	14,974	29,325	130,921	...	8,732	13,410	22,142	153,063
Central Provinces.	Betul . .	80	...	62	142	...	...	17	17	169
	Wardha Valley	2,032	...	506	2,538	...	...	132	132	2,670
	Peuch Valley .	7,283	716	2,543	10,542	...	700	1,027	1,727	12,269
	Total .	9,395	716	3,111	13,222	...	700	1,176	1,876	15,098
Orissa	Hingir Bampur	312	...	103	415	...	...	115	115	530
Punjab	Salt Range .	1,984	46	1,135	3,165	...	...	22	22	3,187
	Grand Total .	151,502	16,179	46,413	214,094	...	9,668	21,085	30,753	244,847

DIX I—contd

No 1-A.

on a day in the selected week in February 1938

Total number prevented from attending									Grand Total
Males				Females				Total Males and Females	
Under-ground	Open working	Surface	Total	Under-ground	Open working	Surface	Total		
13		2	35			18	18	53	189
963	11	42	1 016		1	5	67	1 0 3	3 008
85		41	127					127	697
1 081	11	109	1 181		10	3	85	1 066	3 04
									47
									15
									201
4 46	12	816	5 233		10	656	666	5 939	76 199
802	30	81	916		21	3	74	200	11 490
2 150	67	635	3 072		63	237	350	3 422	116 422
193	1 064	289	1 746		701	28	7 9	2 475	20 134
3 990	8	136	4 134		5	103	108	4 21	11 07
1 238	519	43	1 800		160	4	184	1 084	7 647
13		3	16					16	467
8 685	1 903	1 090	11 684		9 0	4 5	1 415	13 109	166 192
10			10					10	163
75		10	85					91	761
896	39	141	1 076		56	59	85	1 161	13 40
981	39	151	1 171		26	65	91	1 062	16 369
3		2	5					5	55
88		15	103					103	22
15 284	1 9 0	2 163	19 437		1 013	1 269	2,287	21 74	5 57

Table

Average hours worked per week in

Mineral Field.	Underground.					
	Overmen and Sirdars. — Foremen and Mates.	Miners.	Loaders.	Skilled Labour.	Un- skilled Labour.	Females.
Jharia Coalfield (Bihar)	49	45	46	46	46	45
Raniganj „ (Bengal)	50	46	46	48	47	45
Giridih „ (Bihar)	42	42	40	46	46	44
Assam Coalfields	47	46	48	46	48	...
Punjab „	42	39	36	42	43	...
Baluchistan „	35	36	37	40	36	...
Pench Valley Coalfield (Central Provinces) .	50	48	49	48	50	49
Bihar Mica	46	45	...	47	46	...
Madras Mica	47	47	...	47	47	...
Central Provinces Manganese	49	48	...	49	49	...
Central Provinces Limestone . . . . .	...	...	...	...	...	...
Bihar Iron . . . . .	...	...	...	...	...	...
Punjab Salt	38	43	...	43	41	23
Bihar China Clay	44	39	...	...	38	...
Punjab Slate . . . . .	...	...	...	...	...	...

DIX I—contd.

No. 2.

each important mining field during the year 1937

Open workings						Surface			
Overmen and Sirdars Foremen and Mates	Miners	Loaders	Skilled Labour	Un skilled Labour	Females	Clerical and Supervising Staff	Skilled Labour	Un skilled Labour	Females
49	47	46	47	45	46	53	50	50	49
47	45	44	47	46	45	52	50	50	49
48	45		49		50	49	47	44	48
45	45	45			45	49	50	50	48
43	44	40		48		63	46	46	48
						36	44	44	
52	52	51	52	52	51	53	52	52	51
44	44		45	44	40	47	47	49	47
48	46		46	46	47	46	46	46	46
48	46		47	44	45	48	47	43	43
50	49		49	50	47	49	60	49	47
49	49		49	49	49	50	50	50	50
54	54					51	46	47	
46	47		45	46	46	46	46	46	43
40	40		41	41		48	48	48	

Table

Analysis of figures relating to

Province.	Coalfield.	Coal.					
		Opening stock.	Raisings.	Total.	Despatches.	Colliery consumption.	Coal delivered for coking.
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Assam . . .	Khasi & Jaintia Hills.	5,771	2,735	8,506	6,869	...	...
	Makum . . .	...	218,498	218,488	204,100	11,860	2,528
	Nazira . . .	411	22,427	22,871	22,280	591	...
Baluchistan . .	Baluchistan . .	230	10,624	10,854	10,336	..	...
Bengal (and part of Bihar).	Raniganj . .	273,067	7,196,324	7,469,391	6,795,024	461,148	60,665
Bihar . . .	Jharia . . .	431,875	9,601,230	10,036,105	7,748,284	528,489	1,195,397
	Dokaro . . .	3,096	2,809,170	2,812,266	2,249,446	44,515	14,311
	Karanpura . .	5,462	534,328	539,790	506,636	15,588	...
	Giridih . . .	143,512	674,794	818,306	728,553	29,607	...
	Jainty . . .	7,433	47,490	54,923	45,764	5,448	...
Central Provinces	Betul . . .	235	5,657	5,892	3,815	1,020	...
	Pench Valley	14,129	1,234,233	1,248,362	1,164,519	71,258	...
	Wardha Valley .	5,058	264,269	269,327	253,780	14,920	...
Orissa . . .	Hingir-Rampur .	1,026	47,127	48,153	40,944	4,936	...
Punjab . . .	Salt Range . .	2,385	166,632	169,017	162,254	3,418	...
	Total 1937	896,723	22,335,528	23,232,251	19,942,554	1,192,793	1,272,901

IX I—contd.

to. 3.

re output of Coal and Coke, 1937.

		Coke									
Coal despatched to coke factories	Closing stocks	Opening stocks		Coke made		Despatches		Colliery consumption		Closing stocks	
		Hard	Soft	Hard	Soft	Hard	Soft	Hard	Soft	Hard	Soft
Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
	1,637			528		449		79	..		
..	518	..						..
	1,2554	92	257	2 601	40 666	2 744	39 743		327	149	883
1 848 521	563 9 3	3 912	10 214	83 564	791 668	88 140	706 126	430	2 369	3 901	13 306
6 308	3 991	35	119	3 546	4 813	7 502	4 915	39	11	41	6
	17 566										
73 9'3	60 146										
	3 711										
	1 007										
	12,590	16								16	
	677				..						
	2,223	..									
	3 345										
1 928 752	824 021	4 006	10 620	95,439	637,145	94 630	830 784	503	2 706	4 107	14 275

APPENDIX I—*contd.*

Table No. 4.

Numbers of mines opened, closed and inspected, during the year 1937.

PROVINCE.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				INSPECTIONS.	
			Worked under mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.
COAL								
Assam	Khasi and Jaintia Hills	1	..	1	1	1
	Lakhimpur—Makum Coalfield	4	4	3	6
	Naga Hills—Nazira Coalfield	1	..	1	2	2
Baluchistan	Baluchistan Coalfield	17	..	17	8	6	10	15
Central (and part of Bihar).	Raniganj Coalfield	226	70	43	15	234	959	
Bihar	Jharia Coalfield	251			71		1,418	
	Bokaro Coalfield	8					20	
	Karanj	6					7	
	Giridih	4						
	Jaintia C	7						
Central Provinces.	Betul		1					
	Pench Valley		20					
	Wardha Valley							
Orissa	Hingir-Rampur Cr							

APPENDIX I—*contd.*Table No. 4—*contd.*Numbers of mines opened, closed and inspected, during the year 1937—*contd.*

PROVINCE	District and Mineral field	Number of mines under the scope of the Act	NUMBER OF MINES				INSPECTIONS	
			Worked under mechanical power	Not worked by mechanical power	Opened during the year	Closed during the year	Number of mines inspected	Number of inspections
Jabalpur			COAL— <i>contd.</i>					
	Salt Range Coalfield	40		40	18	13	25	34
	Grand Total (Coal) for 1937	674	368	236	144	55	604	2 566
	Grand Total of preceding year	594	355	149	65	54	536	2 784
	Difference	+10	+13	+87	+81	+1	+68	-218
Madhya Pradesh			IRON ORE					
	Singhbhum	8		5	1		3	8
	Grand Total (Iron Ore) for 1937	5		5	1		3	8
	Grand Total of preceding year	7		7			7	8
	Difference	-2		-2	+1		-4	
Maharashtra			MANGANESE ORE					
	Singhbhum	14		14	3		12	13
	North Kanara	3		3	3			
Madhya Pradesh	Panch Mahals	2	2				2	3

APPENDIX I—*contd.*Table No. 4—*contd.*Numbers of mines opened, closed and inspected, during the year 1937—*contd.*

PROVINCE.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				INSPECTIONS.	
			Worked under mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.
MANGANESE ORE—contd.								
Central Provinces.	...	67	3	64	37	3	36	36
Madras	...	12	1	11	3	2	6	6
	Grand Total (Manganese Ore) for 1937.	98	6	92	46	6	56	58
	Grand Total of preceding year.	63	5	58	23	7	39	40
	Difference	+35	+1	+34	+23	-1	+17	+18
GOLD.								
Bihar	...	3	...	3	1	1	1	2
	Total of preceding year	3	...	3	1	1	1	1
	Difference	...	...	...	...	...	...	+1
CHROMITE ORE.								
Baluchistan	...	39	...	39	1	...	9	9
Bihar	...	18	...	18	3	...	10	10
Bombay	...	1	...	1	...	...	...	...
	Grand Total (Chromite Ore) for 1937.	58	...	58	4	...	19	19
	Grand Total of preceding year	49	...	49	...	...	9	9
	Difference	+4	...	+4	+4	...	+10	+10

APPENDIX I—contd.

Table No 4—contd

Numbers of mines opened, closed and inspected, during the year 1937—contd

PROVINCE	District and mineral field	Number of mines under the scope of the Act	NUMBER OF MINES				INSPECTIONS	
			Worked under mechanical power	Not worked by mechanical power	Opened during the year	Closed during the year	Number of mines inspected	Number of inspections
Bihar			COPPER ORE.					
	Singhbhum	5	1	5	2		2	6
	Total of preceding year	3	2	1	1		1	6
	Difference	+2	-2	+4	+1		+1	
Bihar	.	70	34	736	360	277	158	168
Madras	.	103	13	90	45	23	72	72
Rajputana		36		36	20	24	14	14
	Grand Total (Mica) for 1937	209	47	862	451	324	244	254
	Grand Total of preceding year	699	40	619	305	234	134	145
	Difference	+210	+7	+203	+146	+90	+110	+109
Panjab			SALT.					
		3	1	2			3	8
	Total of preceding year	3	2	1			2	2
	Difference		-1	+1				+

APPENDIX I—*contd.*Table No. 4—*contd.*
Numbers of mines opened, closed and inspected, during the year 1937—*contd.*

Province.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				INSPECTIONS.	
			Worked under mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.
Madras	Salem	3	MAGNESITE.					
	Total of preceding year	3	3	..	1		2	3
	Difference		3		...		1	1
			..		+1		+1	+2
Pro- cess.	...	4	STEATITE.					
	...	3	4	1			2	3
	...	2	3	1	...		4	4
	...	14	2	..	1	1	1	
Pro- cess.	...	23	14	8	8	17	17	
	Grand Total (Steatite) for 1937	25	23	10	9	24	25	
	Grand Total of preceding year		25	12	10	10	11	
	Difference	-2	-2	-1	+14	+14		

APPENDIX I—*contd.*Table No 4—*contd*Numbers of mines opened, closed and inspected, during the year 1937—*contd*

PROVINCE	District and Mineral field	Number of mines under the scope of the Act	NUMBER OF MINES				INSPECTIONS	
			Worked under mechanical power	Not worked by mechanical power	Opened during the year	Closed during the year	Number of mines inspected	Number of inspections
					SLATE			
Bihar	Monghyr	5		5	1	2	7	7
Punjab		14		14	2	1	13	13
	Grand Total (Slate) for 1937	19		19	3	3	20	20
	Grand Total of preceding year	21		21	7	5	11	11
	Difference	-2		0	-4	-2	+9	+9
					LIMESTONE			
Bihar		14		14	2	1	15	18
Central Provinces		19	2	17	4	4	17	19
Madras		1		1			1	1
Punjab		3	1	2			4	4
Sind							1	1
	Grand Total (Limestone) for 1937	37	3	34	6	5	38	43
	Grand Total of preceding year	47	3	44	11	6	32	35
	Difference	-10		-10	-5			+8

APPENDIX I—*contd.*Table No. 4—*contd.*Numbers of mines opened, closed and inspected, during the year 1937—*contd.*

PROVINCE.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				INSPECTIONS.	
			Worked under mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.
STONE.								
Bengal	3	..	3	..	..	4	4
Bihar	53	...	53	8	4	62	68
Bombay	21	2	19	5	4	32	32
Central Provinces.	...	2	...	2	...	...	...	...
Delhi	Delhi . . . . .	...	...	...	...	...	1	2
.	11	1	10	6	1	14	14
Punjab	4	.	4	...	...	10	10
Sindh	1	..	1	..	...	2	2
United Provinces.	...	13	...	13	2	1	34	30
Grand Total (Stone) for 1937 .		108	3	105	21	10	159	171
Grand Total of preceding year .		104	3	101	9	11	138	144
Difference .		+4	...	+4	+12	—1	+21	+27

APPENDIX I—*contd.*Table No 4—*con d*Numbers of mines opened, closed and inspected, during the year 1937—*contd.*

PROVINCE	District and Mineral field	Number of mines under the scope of the Act	NUMBER OF MINES				INSPECTIONS	
			Worked under mechanical power	Not worked by mechanical power	Opened during the year	Closed during the year	Number of mines inspected	Number of inspections
			SANDSTONE.					
Bihar	Shahabad	2		2			6	6
United Provinces							2	2
	Grand Total (sandstone) for 1937	2		2			8	8
	Grand Total of preceding year	3		3			7	7
	Difference	-1		-1			+1	+1
			FIRE CLAY.					
Bengal		2		2	1		-	2
Bihar		5		5			7	9
Central Provinces		3	2	1			1	1
Orissa							1	1
	Grand Total (Fire Clay) for 1937	10	2	8	1		11	13
	Grand Total of preceding year	4	2	2			2	24
	Difference	+6		+6	+1		-10	-11

APPENDIX I—*contd.*Table No. 4—*contd.*Numbers of mines opened, closed and inspected, during the year 1937—*contd.*

PROVINCE.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				INSPECTIONS.	
			Worked under mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.
			CHINA CLAY.					
Bihar	...	9	...	9	3	2	8	10
Delhi	...	5		5	4	4	9	13
Madras	..	1	...	1	1	...	...	...
	Grand Total (China Clay) for 1937.	15	...	15	8	6	17	23
	Grand Total of preceding year	14	...	14	6	5	9	9
	Difference	+1	...	+1	+2	+1	+8	+14
			CLAY.					
Beagal	Burdwan	3	1	2	1	1	4	4
	Total of preceding year	1	1		...	...	3	5
	Difference	+2	...	+2	+1	+1	+1	-1

APPENDIX I—*contd.*Table No 4—*contd*Numbers of mines opened, closed and inspected, during the year 1936—*contd*

PROVINCE	District and Mineral field	Number of mines under the scope of the Act	NUMBER OF MINES				INSPECTIONS	
			Worked under mechanical power	Not worked by mechanical power	Opened during the year	Closed during the year	Number of mines inspected	Number of inspections
Madras					BARYTES			
		3		5	1		5	5
	Total of preceding year	2		1			1	1
	Difference	+3		+3	+1		+1	+1
Rajputana		1		1	1			
	Total of preceding year	—						
	Difference	+1		+1	+1			
Central Provinces		1		1	1			
	Total of preceding year	1		1		1	1	1
	Difference				+1	-1	-1	-1
Central Provinces		1		1				
	Total of preceding year	1		1				
	Difference							
Central Provinces		1		1				
	Total of preceding year	1		1				
	Difference							

APPENDIX I—*contd.*Table No. 4—*contd.*Numbers of mines opened, closed and inspected, during the year 1937—*contd.*

PROVINCE.	District and Mineral field.	Number of mines under the scope of the Act.	NUMBER OF MINES.				INSPECTIONS.	
			Worked under mechanical power.	Not worked by mechanical power.	Opened during the year.	Closed during the year.	Number of mines inspected.	Number of inspections.
GYPSUM.								
Madras	...	4	...	4	1	1	...	...
	Total of preceding year	4	...	4	...	1	3	4
	Difference	...	...	...	+1	...	+3	+4
BERYL.								
Rajputana	...	3	...	3	1	1	2	2
	Total of preceding year	8	...	8	7	4	2	2
	Difference	-5	...	-5	-6	-3	...	...
GRAPHITE.								
Madras	...	1	...	1	...	...	...	...
Central Provinces.	...	...	...	...	...	...	1	1
	Grand Total (Graphite) for 1937	1	...	1	..	..	1	1
	Total of preceding year	2	...	2	...	...	1	1
	Difference	-1	...	-1	...	...	...	...
BAUXITE.								
Bombay	...	1	...	1	1	...	1	1
Central Provinces.	...	2	...	2	...	...	4	4
	Grand Total of (Bauxite) for 1937	3	...	3	1	...	5	5
	Total of preceding year	...	...	...	...	...	3	3
	Difference	+3	...	+3	+1	...	+2	+2

APPENDIX I—*contd.*Table No. 4—*concl'd.*Numbers of mines opened, closed and inspected, during the year 1937—*concl'd*

PROVINCE	District and Mineral field	Number of mines under the scope of the Act	NUMBER OF MINES				INSPECTIONS	
			Worked under mechanical power	Not worked by mechanical power	Opened during the year	Closed during the year	Number of mines inspected	Number of inspections
Mputana		3		FELSPAR.				
				3	1	1	2	2
	Total of preceding year	5		5		3	3	3
	Difference	-2		-	+1	-2	-1	-1
Mputana		1		MUSCOVITE.				
				1		1		
	Total of preceding year	1		1	1			
	Difference				-1	+1		
Mhar		1		KYANITE.				
				1	1			
	Total of preceding year							
	Difference	+1		+1	+1			
Mhar		1		TANTALITE				
				1		1		
	Total of preceding year	1		1	1			
	Difference				-1	+1		
	Grand Total (Metalliferous Mines) for 1937	1,321	63	1,58	561	371	626	(68)
	Grand Total of preceding year	1,469	79	1,300	497	359	536	581
	Difference	-148	-16	-133	+67	+12	+91	+96
	Grand Total (All Minerals) for 1937	1,925	431	1,494	710	476	1,230	3,216
	Grand Total of preceding year	1,913	434	1,639	562	413	1,071	3,376
	Difference	-4	-3	-45	+148	+13	+159	-160

APPENDIX I—*contd.*

Table No. 5.

The following table shows the fluctuations in the output of the principal minerals raised from mines classed under the Indian Mines Act. The other minerals raised are apatite, asbestos, barytes, bauxite, beryl, chinaclay, clay, felsper, fireclay, fuller's earth, graphite, gypsum, kyanite, magnesite, muscovite, ochre, stone, slate, steatite and tantalite.

Year.	Coal.	Manga- nese ore.	Mica.	Lime- stone.	Salt.	Gold.	Copper ore.	Wolfram ore.	Iron ore.	Chro- mite ore.	Tin ore.	Lead ore.	Silver.
	Tons.	Tons.	Cwts.	Tons.	Tons.	Troy ozs.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Troy ozs.
1928	21,515,793	716,626	44,629	1,404,578	145,543	7	18,055	622	1,206,754	17,167	2,777	443,054	7,404,728
1929	22,308,174	750,908	49,437	1,313,647	148,496	30	76,831	1,061	1,436,395	21,054	3,884	464,561	7,280,517
1930	22,683,861	623,678	52,519	1,143,312	147,276	30	123,749	1,509	1,132,893	30,488	3,001	530,119	7,054,200
1931	20,514,597	347,373	46,177	862,226	134,916	..	153,636	869	590,176	14,938	2,552	397,079	5,900,400
1932	18,719,587	88,110	32,643	725,378	150,386	50	175,375	848	673,434	7,866	2,957	372,586	5,998,956
1933	18,160,681	53,240	41,005	1,120,110	145,838	267	201,722	836	653,239	9,770	3,209	454,791	6,054,063
1934	20,243,977	221,383	55,555	949,860	154,955	858	328,676	1,333	834,477	9,356	3,890	443,489	5,792,933
1935	21,014,460	422,847	58,553	1,000,308	150,515	1,255	350,801	2,549	1,179,050	19,039	4,383	463,896	5,825,939
1936	20,583,982	624,830	82,077	1,007,957	151,523	1,376	357,194	3,140	1,401,590	28,142	4,664	468,842	5,952,000
1937	22,335,528	800,380	94,811	1,318,598	163,813	36	371,458	...*	1,567,362	35,387	...*	...*	...

* The production in previous year was from Burma.

Table No. 6.

The following table shows the amount of coal raised, the average number of persons working daily and the death-rates during the years 1928-1937 in respect of coal mines under the Indian Mines Act :—

Year.	Amount of coal raised.	Average number of persons work- ing daily below and above ground.	Number of deaths below and above ground.	Death-rates.	
				Per 1,000,000 tons raised.	Per 1,000 per- sons working daily below and above ground.
1928	21,515,796	164,139	218	10.13	1.33
1929	22,308,174	165,658	194	8.70	1.17
1930	22,683,861	169,601	211	30	1.25
1931	20,514,597	158,267	185	9.02	1.17
1932	18,719,587	148,489	151	8.07	1.02
1933	18,160,681	144,707	124	6.83	0.86
1934	20,243,977	151,375	157	7.76	1.04
1935	21,014,460	159,254	264	12.56	1.66
1936	20,583,982	162,917	420	20.40	2.58
1937	22,335,528	171,149	200	8.95	1.17

APPENDIX I—contd

Table No 7

Aggregate horse power and purposes for use of electric motors installed both on surface and underground at Coal Mines under the Indian Mines Act

Coalfield	Horse power on surface					Horse power below ground					Total horse power of motors installed	
	Winding	Ventilation	Haulage	Coal washing or screening	Miscellaneous	Total	Haulage	Pumping	Portable machinery	Miscellaneous		Total
Assam		117	125	7	186	435	180				180	615
Bokaro	200	195	600	88	1161	2334	230	0	55		285	3213
Central Provinces		83	100		43	226	26	86	315	30	437	165
Gridi	165	300		0	448	913	79	420	10	12	506	667
Jharia	773	100	745	1186	1685	5369	50	2183	363	104	3536	4486
Karantura		75	750	95	344	1264		453	107		560	1824
Punjab			23			23						23
Raniganj	225	1435	350	108	887	6195	7189	1160	3127	337	2393	8518
Total	5433	3517	4415	2674	4774	20840	16541	39637	403	443	65984	86804

Table No 8

Number of Mines under the Indian Mines Act where electric power is used, and the aggregate horse power of electric motors installed

Province	Minerals worked				Total horse power of motors installed
	Coal		Sundry Minerals		
	Number of mines	Horse power	Number of mines	Horse power	
Assam	2	615			615
Bengal	43	2440	1	58	2498
Bihar	69	60000	6	4051	64050
Bombay			1	166	166
Central Provinces	9	160	7	560	2235
Madras			3	441	441
Punjab	1	25	0	1	25
Total	124	86804	20		

APPENDIX I—*contd.*

Table No. 9.

Number and type of coal-cutting machines at work in Coal Mines under the Indian Mines Act.

Name of machine.	Chain.	Bar.	Percussive.	Power.		Total number of machines.
				A. C.	D. C.	
Diamond	1	...	...	1	...	1
Goodman	65	...	...	45	20	65
Hardy . . . . .	...	..	6	6	...	6
Mavor and Coulson	26	29	...	57	1	56
Sullivan	10	...	...	10	...	10
Total	105	29	6	119	21	140

Jharia coalfield	46 machines	} Total number of square feet undercut—6,890,160.
Raniganj coalfield	78 "	
Giridih coalfield	1 machine	
Karanpura coalfield	5 machines	
Bokaro coalfield	1 machine	
Central Provinces coalfield	9 machines	

Table No. 10.

Number of mechanical ventilators in use at Coal Mines under the Indian Mines Act in 1937.

Assam.	Baluchistan, Bengal.	Bihar.	Central Provinces.	Orissa.	Punjab.	Total.
9	... 33	64	9	...	2	117

APPENDIX I—*conold*

Table No. 11.

Safety lamps in use at Coal Mines under the Indian Mines Act

Name of manufacturer	Number in use in						
	Assam	Baluchistan	Bengal	Bihar	Central Provinces	Orissa	Punjab
Geag	320		Electric.				
Oldham				1 600			
Concord &			1 175	502			
Darnes	389		Flame type.		5		6
Hillwood	1 069		4 8 8	3 139			
Naylor			2 355	11 796			
Patterson			4	234			
Premier			269	1 386			
Thomas Williams			27	963			
Wolfe			7 730	5 076			
		6					
Total	1 778	6	16 423	24 730	5		6

9 731 were locked by lead rivets and 33 217 by magnetic means

Table No. 12.

Statement of explosives used during the year 1937 at mines under the Indian Mines Act

Name of explosives.	Quantity of explosives used in lb in					
	Coal mines	Iron mines	Manganese mines	Limestone mines	Stone mines	Other mines
Dynamite	2 199	17 000	5	20	2 433	2 177
Gelignite	59 641	17 609	91 417	9 020	2 120	449 474
Monobel	42 720			1 110		
Stonobel	167 580					
Dynobel	242					
Robbinite	15					
Ranukol	9 960					
Liquid Oxygen	112 881					
Gunpowder	2 751 418	10 014	110 573	270 918	159 684	409 305
Perc Powder					1 846	
Number of detonators used	778 050	1 478 078	572 947	2 409		

APPENDIX II—*contd.*Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remark.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(a) Falls of roof						
14	14th March, 6-30 A.M.	No. 2 Gambhara Mine, Dandot P. O., Punjab.	The Executor of the Estate of late Lala Shanker Das.	Sultan Ali, (m.), 21, <i>Coal-cutter</i> , Rajwali, (m.), 33, <i>Carpenter</i> .	Coal	While at work on a longwall face, two persons were struck and killed on the spot by a mass of stone, 7' x 2'—3' x 1', which fell from the roof at a height of about 3 feet. Inspection and enquiry made.
15	18th March, 1-30 A.M.	Ekra Khas Mine, Bansjora P. O., Bihar.	Maharaja S. C. Nandi.	Tahalu Gope, (m.), 45, <i>Coal-cutter</i>	Coal	Deceased entered a place from where timber had been withdrawn in order to retrieve his basket. A mass of coal, 20' x 15' x 2' thick, fell from the roof and killed him instantly. Inspection and enquiry made.
16	20th March, 7-30 A.M.	Budroochuck Mine, Sijua P. O., Bihar.	Budroochuck Coal Mining Co., Ltd.	(1) Kishan Majhi, (m.), 42, (2) Badan Majhi, (m.), 35, (3) Somra Majhi (m.), 30, <i>Coal-cutters</i> .	Coal	As four coal-cutters were walking up a main haulage road at the termination of their relay a mass of roof stone, 24' x 8' and from 6' to 8' thick, fell from a height of 8 feet. Three of them were killed instantly and the other was seriously injured. Inspection and enquiry made.
17	9th April, 9-15 P.M.	Dohari Mine, Jharua P. O., Bihar.	Keshavji Pitambar, Receiver.	Motku Manjhi (m.), 25, Sitha Manjhi (m.), 30, <i>Coal-cutters</i> .	Coal	The deceased were dressing down roof coal in a gallery, when a mass of coal, 5' x 6' x 2' thick, fell on them from a "slip" at a height of 8 feet. One was killed on the spot and the other died shortly afterwards. Inspection and enquiry made.
18	14th April, 2-30 A.M.	Central Jinnagora Mine, Jharua P. O., Bihar.	Central Jinnagora Coal & Coke Agency.	Haril Mahato, (m.), 30, <i>Coal-carrier</i> .	Coal	While deceased was loading coal in a gallery, a mass of stone, 4' x 6' x 4' and from 2' to 4' thick, fell on him from the roof at a height of 6 feet, and he died about three months later. Inspection and enquiry made.

19	14th April, 3 P.M.	Sarampur Mine Girdih P.O., Bihar	Government of India State Rail- way Coal Dept.	(1) Habib Meh, (m), 42, (2) Akhoo Dasad, (m), 45, Coal-cutters	Coal	While a gang of miners was engaged in clearing an old roadway, 5-6" high, a "bump" occurred in the roof causing a mass of coal 10' x 10' x 3' to fall from a hidden slip in the roof. Two miners were killed on the spot and another received serious injuries. Inspection and enquiry made.
20	18th April, 8 A.M.	No. 8 Gandhala Mine Dandot P.O., Punjab.	Wab. Stone & Lime Quarry Ltd., and Panjit Chaud	Rushmat Ali, (m), 40, Coal-cutting	Coal	While a miner was working on a longwall face a mass of stone fell on to his head from the roof at a height of 2½ feet. He sustained fatal injuries. Inspection and enquiry made.
21	15th May, 5 A.M.	Ponhati Mine Chattarpur P.O., Bengal.	Ponhati Collieries Ltd.	Karam Singh (m), 30, Timber-sawyer	Coal	While props were being withdrawn from a depillaring area deceased attempted to recover a prop dislodged by a bytresser prop-drawer. He was killed by a fall of a mass of roof coal, 25' x 10' x 2', which suddenly fell from a height of 16 feet. Inspection and enquiry made.
22	7th May, 11.30 A.M.	Chasnalla Mine Pathardih P.O., Bihar	Chasnalla Coal Co.	Sarkar Manjhu, (m), 32, Coal cutter	Coal	While pushing an empty tub on a tramline deceased was struck and killed instantly by a fall of roof coal, 10' x 7' x 6' x 4', which suddenly became dislodged from between three "slips" at a height of about 3 feet. Inspection and enquiry made.
23	23rd May, 4.30 A.M.	Ganeshodh Mine Jharia P.O., Bihar	M. B. Banerjee	Lalbahari Chhetwarin, (f), 42, Coal-loader	Coal	While a female coal-carrier was filling a basket with coal in a gallery, 12 feet high in which roof coal was being worked a mass of coal 5' x 7' x 5' x 1' x 3', fell from a slip in the roof. She was killed instantly. Inspection and enquiry made.
24	11th June, 11.15 A.M.	Jamadoba Mine, Jalgaon P.O., Bihar	The Tata Iron & Steel Co. Ltd.	Mahabdin (m), 40, Labourer	Coal	A timberman and his two assistants were set to withdraw three props in a depillaring area. They had withdrawn two props and while the third was being withdrawn a mass of roof stone, 10' x 8' x 6', became dislodged from a height of 12 feet and struck deceased who succumbed to his injuries shortly afterwards. Inspection and enquiry made.
25	10th June 1.30 P.M.	Namdang Mine Margherita P.O., Assam	Assam Railway & Trading Co., Ltd.	Kamora Pathan (m), 45, Coal cutter	Coal	While a miner was kneeling down coal from the roof of an opening a piece of coal, weighing 100 lbs. fell from a height of 10 feet. He was struck on the head and killed instantly. Inspection and enquiry made.
26	23rd June 11.30 P.M.	Jharia Khos Mine, Jharia P.O., Bihar	Standard Coal Co. Ltd.	Charan Bham, (m), 26, Loader	Coal	While coal was being loaded in a depillaring area in a seam, 2½ feet thick a mass of coal, 6' x 4' x 3', fell from the roof. Deceased was struck by the falling coal and received fatal injuries. Inspection and enquiry made.
27	20th June 4.35 A.M.	Bansodepur Mine Kusunda P.O., Bihar	New Bansodepur Coal Co., Ltd.	Bolorpur Bar, (m), 50, Coal cutter	Coal	Deceased entered a gallery to load slack coal where roof coal was being cut. A mass of coal, 18' x 6' x 1' x 3', fell from the roof at a height of 10 feet and he sustained fatal injuries. Inspection and enquiry made.

APPENDIX II—*contd.*Fatal Accidents during the year 1937—*contd.*

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(a) Falls of roof—<i>contd.</i>						
28	30th June, 3-50 P. M.	Standard (Jharwa Khas) mine, Jharwa P. O., Bihar.	Standard Coal Co. Ltd.	Lachoo Noonia, (m.), 38, Loader.	Coal	Deceased was struck by a mass of coal, weighing about 3 cwt., which fell on him from the roof of a gallery 20 feet high where roof coal was being taken down by blasting. He sustained serious injuries which proved fatal eighteen days later. Inspection and enquiry made.
29	8th July, 3-30 P. M.	Jainty Central mine, Karnatar P. O., Bihar.	Jainty Central Colliery Limited.	Babulal (Jalpa) Manjhi, (m.), 35, Coal-cutter.	Coal	While deceased was at work in a gallery, 4½ feet high, a mass of roof stone, 9' x 6' and from 1" to 1' thick, fell unexpectedly and killed him instantly. Inspection and enquiry made.
30	11th July, 3-33 A. M.	Upper Ghoravari Mine, Jinnordoo P. O., Central Provinces.	Hirdagarh Collieries, Ltd.	(1) Shoikh Babu, (m.), 35, Coal-cutter. (2) Gutta, (m.), 35. (3) Kashilal, (m.), 30, Loaders.	Coal	Coal was being loaded after blasting a "stook" in a depillaring area when a mass of shale-roof, about 10' x 10' x 8" thick, suddenly fell from a height of 15 feet killing two loaders instantly. A miner sustained serious injuries to which he succumbed in hospital half an hour later. Inspection and enquiry made.
31	15th July, 5 A. M.	Newton Chickli Mine, Parasia P. O., C. P.	Newton Chickli Collieries Ltd.	Sheik Subhan, (m.), 45, Coal-cutter.	Coal	While robbing coal from a forced off gallery deceased was killed by a mass of stone, about 3' x 2' x 1'—6" thick, that fell on him from the corner of a pillar at a height of about 8 feet. Inspection and enquiry made.
32	15th July, 2 P. M.	West Bhuggutdih Mine, Jharwa P. O., Bihar.	West Bhuggutdih Colliery Co.	Jai Ram Meah, (m.), 35, Coal-cutter.	Coal	Deceased left his working place and went through a fence into a goafed area to load fallen coal. He was killed by a mass of roof coal, weighing about 1½ tons, which fell from a height of about 12 feet. Inspection and enquiry made.
33	17th July, 9-3 A. M.	No. 3, North Gambhara mine, Dancoot P. O., Punjab.	The Executors of the Estate of Late Lala Shanker Das.	Kalla, (m.), 25, Coal-cutter.	Coal	While cutting coal on a longwall face a mass of stone fell on the deceased from a height of 3 feet and killed him on the spot. Inspection and enquiry made.

34	1 st July 10 A M	Chattrpur Mine Chattrpur P O, Bengal	Apur Collieries, Ltd	Gulpi Turu (m) 30 <i>Trunk-rocks</i>	Coal	While deceased was sound in the roof in a deep laring area, a mass of coal 4 x 3 x 1 thick fell from between two concealed cleats at a height of 14 feet. He was struck and killed instantly. Inspection and enquiry made.
35	25th July 3-30 P M	Patmohana Mine Sitarampur P O Bengal	North Damuda Coal Co Ltd	(1) Balai Manjhi (m) 8 <i>Coal-carrier</i> (2) Bhutoo Singh (m) 28, <i>Driller</i>	Coal	The deceased were killed by a mass of coal 1 x 11 and from 1—6 to 2—6 thick which fell without warning from two concealed slaps and a parting in the roof at a height of 5 feet. Inspection and enquiry made.
36	9th August 1-30 P M	Jamadoba Mine Jalgora P O, Bihar	Tata Iron & Steel Co Ltd	Noonaram Manjhi, (m) 36 <i>Coal-carrier</i>	Coal	While a miner was engaged in widening out a proposed haulage road 8 feet high a mass of stone 8 x 3 x 1—3, fell from the roof at a point where a fault crossed the gallery. He was struck by the falling stone and received injuries which proved fatal shortly afterwards. Inspection and enquiry made.
37	17th August 9 P M	Kustore (Alkusa North) Mine Kusanda P O Bihar	Ranegunge Coal Association Ltd	Budhi Koiri, (m) 30 <i>Loader</i>	Coal	While a loader was at work in a gallery 12 feet high in which roof coal has been taken down prior to the destruction of a pillar a mass of stone 0 x 3 x 2—6, fell from the roof and killed him instantly. If supports had been set along a fault which passed through the gallery the accident would have been avoided. Inspection and enquiry made.
38	21st August 1 A M	Ponapur Mine Churulia P O Bengal	B Mukherjee & Co	1 Valunda Muchi (m) 30 2 Jogunda Bouri (m) 28 <i>Coal cutters</i>	Coal	The deceased left their working place and passed through a fence to rob coal from the edge of a goaf. They were killed by a fall of roof in the goaf. Inspection and enquiry made.
39	21st August 1 A M	Churulia Mine, Churuli P O, Bengal	Churulia Coal Co Ltd	Dami Majban (f) 33 <i>Coal-carrier</i>	Coal	While three women were loading coal in a gallery, 9 ft high a mass of coal and shale, 14 x 6 x 9, fell from the roof. One of the women was killed instantly and two others were seriously injured. Inspection and enquiry made.
40	August M	Standard Denahir Section Mine, Jharua P O, Bihar	Standard Coal Co, Ltd	Mahabir Bhusa, (m) 30 <i>Loader</i>	Coal	Deceased was loading coal that had been blasted from the roof of a gallery 2 feet high, when a mass of roof coal 2 x 2 x 1—6, fell on him from between two concealed cleavage planes. He sustained serious injuries which proved fatal five hours later. Inspection and enquiry made.
41	August P M	Chattrpur Hindustani Mine, Chattrpur P O Bihar	Kaloo Ram Modi	1 Latoo Gope, (m) 12 2 Mahadeo Singh, (m) 45 <i>Drillers</i>	Mica	While at work in a drive the deceased were struck and killed instantly by a mass of earth and stone which fell from the roof at a height of about 6 feet. Inspection and enquiry made.

48	13th October 7.30 P M	Victoria Mine, Kulti P O, Bengal	The New Heer broom Co., Ltd	Jai in Manjhi, (m) 40 Coal cutter	Coal	While deceased was engaged in a depillaring area in a seam 7 feet thick a mass of roof stone 6 x 4 x 6, dislodged some supports and fell on him. He was killed instantly. Inspection and enquiry made
49	15th October, 11.0 P M	Jodna Mine, Jharia P O, Bihar	Lodna Colliery Co., (1920), Ltd.	Janglo Noma (m) 46 Loser	Coal	While loading coal in a depillaring area, deceased was killed instantly by a fall of roof 9 x 4 x 6, which fell unexpectedly from a height of 26 feet. Inspection and enquiry made
50	20th October, 9 A M	Idco (New West) Mine, Margherita P. O., Assam	The Assam Rail- ways and Trading Co., Ltd	Ial Bahadur, Newar (m) 56 Coal cutter	Coal	While engaged in dressing the roof preparatory to setting timber on a new siding deceased was fatally injured by a mass of coal, 4 x 2 x 1-1 which fell from the roof at a height of 7 feet. Inspection and enquiry made
51	20th October, 9.45 P M	Kustore Mine, Kusunda P O Bihar	Ranceguise Coal Association Ltd	Gurn Charan Singh, (m) 36 Proprietary Sital Singh, (m) 32 Proprietary	Coal	While props were being withdrawn in a depillaring area a mass of roof stone 40 x 16 x 3-6, fell from a height of 12 feet killing the deceased instantly. Inspection and enquiry made
52	23rd October, 7 P M	Dhobani Mine, Ghatula P O Bihar	Indian Copper Corporation Ltd	Jwar Sahoo (m) 23 Blade holder P. Mayandi, (m) 45 Lander	Copper	While the deceased was engaged in charging shot holes in a stope a mass of stone 12 x 12 x 4, fell on them from between two concealed slips in the hanging wall at a height of 6 feet. They were killed instantly. Inspection and enquiry made
53	28th November, 6 P M	South Samla Mine, Pandaveer P. O., Bengal	South Samla Colli- ery Co	Baro Lakshai Man- jhi (m) about 30, Coal cutter	Coal	Deceased was killed instantly, in a working gallery when a mass of roof coal weighing approximately 73 tons fell from a height of 10 feet. Inspection and enquiry made
54	12th November 2 P M	New Simidh Mine, Katraagarh P O, Bihar	N K Nag (Reer- ver)	1 Budeishi Manbah (m) 35 2 Panchu Mahedi (m) 30, Coal cutters	Coal	The deceased entered a fenced off goaf to haul loose coal and were killed instantly by a mass of shale measuring about 70 x 60 x 1-6 which fell from the roof at a height of 4 ft. Inspection and enquiry made
55	19th November 4.45 A M	Charanpur Mine, Charanpur P O, Bengal	Apear Collieries Ltd	Burlal Kole 40 Coal cutter	Coal	While a coal cutter was engaged in loading coal in a depillaring area a large stone fell from inside the gaff and dislodged three props in the working place. He was struck by one of the props and sustained injuries which proved fatal. Inspection and enquiry made
6	21st November 1 A M	No 3 North Gambraia Mine Daudot P O Panjab	The Executors of the estate of late Lala Shanker Dasa	Khan (m) 39, Coal cutter	Coal	While working in a place from where supports had been withdrawn deceased was killed by a mass of stone which fell from the roof at a height of 3 feet. Inspection and enquiry made

Fatal Accidents during the year 1937—*contd.*

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(a) Falls of roof—<i>contd.</i>						
57	26th November, 11-30 A. M.	Danna Mine, Bamanwara P. O., Central Provinces.	Kanhan Valley Coal Co., Ltd.	Shivbhajan, (m.), 32. <i>Coal-cutter.</i>	Coal	While dressing coal from the side of a pillar after blasting, a miner was struck and fatally injured by a mass of coal, 1'-6" x 1' x 1', which fell from the roof at a height of 11 feet. Inspection and enquiry made.
58	9th December, 4 A. M.	Sondra Mine, Bansjora P. O., Bihar.	Sondra Coal Co., Ltd.	Banku Banri, (m.), 28. <i>Coal-carrier.</i>	Coal	While engaged in carrying coal from his working place deceased was struck and killed instantly by a fall of roof, about 36' x 5' x 3', which suddenly became dislodged from between to 'slips' at a height of 7 feet. Inspection and enquiry made.
59	15th December, 4-30 P. M.	Kanjora Mine, Kajoragram P. O., Bengal.	K. C. Pal Choudhury & Brothers.	Mangar Turi, (m.), 27. <i>Loader.</i>	Coal	In a depillaring section, deceased was filling his basket with the coal obtained from blasting a 'stook', when a piece of roof coal, about 3' x 2' x 1' thick, fell on him from a height of 18 feet. He was killed instantly. Inspection and enquiry made.
60	24th December, 9-30 P. M.	Sitalpur Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ltd.	Babulal Passai, (m.), 37, <i>Coal-cutter.</i>	Coal	Deceased left his working place and entered a fenced off area to rob loose coal from the sides of some pillars. He was struck by a mass of roof-stone, about 9' x 4' x 1' thick, which fell from a height of 8 feet. He sustained serious injuries to which he succumbed 5 hours later. Inspection and enquiry made.
61	28th December, 10 A. M.	Balaghat Mine, Bharweli P. O., Central Provinces.	The Central Provinces Manganese Ore Co., Ltd.	Hari, (m.), 29. <i>Roof dresser.</i>	Manganese ore.	Deceased was dislodging some loose roofstone in a stope when he slipped and a mass of roof, 3' x 3' x 1'-6", fell on him from a height of 8 feet. He was killed instantly.
62	31st December, 6-45 P. M.	Lodna Mine, Jharia P. O., Bihar.	Lodna Colliery Co. (1920), Ltd.	Bandhu Bhuia, (m.), 26, <i>Loader.</i>	Coal	While deceased was loading coal on a haulage road, a mass of coal, measuring about 14' x 5'-6" x 6'-6", suddenly became dislodged from between two "slips", in the roof at a height of 6 feet. He was struck by the edge of the fall and killed instantly. Inspection and enquiry made.

(b) Falls of Sides—(70 deaths)

63	6th January, 11 P M	Tawa Valley Mine, Gondal P O, Central Province	Wajji Sons	Bhimji	&	(1) Sarum Mehra, (m) 25 (2) Gakru Mehra, (m) 23, (3) Bhandar Mehra (m) 22, Sons cutters Ganpat Chamar (m) 21, Leader Chota Samibu Kera (m) 26, Coal cutter	Coal	Coal	While the floor of a new incline cutting was being cut down to the coal seam a mass of sandstone 30 x 10' and from 1' to 4' thick, fell from the side at a height of 20 feet. The deceased were buried and killed instantly. The fall exposed a concealed slip in the side. Inspection and enquiry made.
64	15th January, 5 A M	Parvate Mine, Jalgaon P O, Bihar	East Indian Co., Ltd	Coal		Ganpat Chamar (m) 21, Leader Chota Samibu Kera (m) 26, Coal cutter	Coal	Coal	While engaged in carrying coal to the loading line a loader was struck and fatally injured by a mass of coal, 8 x 2-6' x 10', which fell from the side of a pillar at a height of 23 feet. Inspection and enquiry made.
65	21st January, 4 P M	Wadi Mine, Muzam pur P O, Bengal	Messrs. Morarji Munshi & Co	Coal		Chota Samibu Kera (m) 26, Coal cutter	Coal	Coal	A miner left his working place entered a raised gallery and began to cut coal beneath a stone band. A port on of the band about 6 x 2 6' x 2' thick, broke away from a height of 14 feet and partially buried him. He sustained internal injuries and expired within an hour. Inspection and enquiry made.
66	4th February, 10 A M	Phanabare Mine, Latharidih P O, Bihar	Thulanbarao Co., Co., Ltd	Coal		Rao Sahay Mahato (m) 27, Tin ore-cutter	Coal	Coal	Following depulping operations decreased with another person was carrying pieces that were being withdrawn; it in a working place. A mass of coal, weighing about 8 tons suddenly fell from the side of an adjoining pillar. Deceased was buried under the fall and killed while his companions received serious injuries. Inspection and enquiry made.
67	15th February, 4-30 P M	Kuthulwara Mine, Gundah P O, Bihar	Govt. of India State Railway Co., Department	Coal		Rachanata Bhocua, (m) 28, Coal-cutter	Coal	Coal	While the extraction of a pillar was proceeding a mass of stone band and coal 4' x 1-6' x 6' rolled against a prop. The prop struck and killed him on the spot. Inspection and enquiry made.
68	15th February, 4-30 P M	Salya (Shabal) Mine, Moga P O, Central Province	Dyes & Stone Co., Ltd	Time		Bhawal (m) 20 Ram Ratin (m) 30 Jawahar (m) 24 Sathu Doo, (m) 25 Hirdan (m) 20 Ram Nath (m) 40 Umran (m) 20 Met Mulia, (f) 20 Met Chauti (f) 19 Labourers	Limestone	Limestone	A large portion of the limestone and overburden of a side of an open quarry unexpectedly collapsed and killed nine persons—seven men and two women. Inspection and enquiry made.

APPENDIX II—*contd.*Fatal Accidents during the year 1937—*contd.*

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(a) Falls of roof—<i>contd.</i>						
57	26th November, 11-30 A. M.	Danna Mine, Bamanwara P. O., Central Provinces.	Kanhan Valley Coal Co., Ltd.	Shivbhaijan, (m.), 32. <i>Coal-cutter.</i>	Coal	While dressing coal from the side of a pillar after blasting, a miner was struck and fatally injured by a mass of coal, 1'-6" x 1' x 1', which fell from the roof at a height of 11 feet. Inspection and enquiry made.
58	9th December, 4 A. M.	Sondra Mine, Bansjora P. O., Bihar.	Sondra Coal Co., Ltd.	Banku Bauri, (m.), 28. <i>Coal-carrier.</i>	Coal	While engaged in carrying coal from his working place deceased was struck and killed instantly by a fall of roof, about 35' x 5' x 3', which suddenly became dislodged from between to 'slips', at a height of 7 feet. Inspection and enquiry made.
59	15th December, 4-30 P. M.	Kojora Mine, Kujoragram P. O., Bengal.	K. C. Pal Choudhury & Brothers.	Mangar Turi, (m.), 27. <i>Loader.</i>	Coal	In a depillaring section, deceased was filling his basket with the coal obtained from blasting a "stock", when a piece of roof coal, about 3' x 2' x 1' thick, fell on him from a height of 18 feet. He was killed instantly. Inspection and enquiry made.
60	24th December 9-30 P. M.	Sitalpur Mine, Sitarampur P. O., Bengal.	Bengal Coal Co., Ltd.	Babulal Passi, (m.), 37. <i>Coal-cutter.</i>	Coal	Deceased left his working place and entered a fenced off area to rob loose coal from the sides of some pillars. He was struck by a mass of roof-stone, about 9' x 4' x 1' thick, which fell from a height of 8 feet. He sustained serious injuries to which he succumbed 5 hours later. Inspection and enquiry made.
61	28th December, 10 A. M.	Balaghat Mine, Bharweli P. O., Central Provinces.	The Central Provinces Manganese Ore Co., Ltd.	Hari, (m.), 29. <i>Roof dresser.</i>	Manganese ore.	Deceased was dislodging some loose roofstone in a stope when he slipped and a mass of roof, 3' x 3' x 1'-6", fell on him from a height of 8 feet. He was killed instantly.
62	31st December, 6-45 P. M.	Lodna Mine, Jharna P. O., Bihar.	Lodna Colliery Co. (1920), Ltd.	Bandhu Bhuia, (m.), 26. <i>Loader.</i>	Coal	While deceased was loading coal on a haulage road, a mass of coal, measuring about 14' x 5' - 6" x 5' - 6", suddenly became dislodged from between two "slips", in the roof at a height of 6 feet. He was struck by the edge of the fall and killed instantly. Inspection and enquiry made.

(b) Falls of Sides—(70 deaths).

63	16th January, 11 P.M.	Tawa Valley Mine, Ghoradongri P.O., Central Provinces	Wahli Sons	Bhumi &	(1) Sarum Mehra (m), 25 (-) Gakra Mehra, (m), 23, (b) Mondar Mehra (m), 22, <i>Sons rulers</i> Ganpat Chaurat, (m), 24, <i>Leader</i> C/O S. S. Sumbhu Kor, Sumbhu (m), 26, <i>Coal cutter</i>	Coal	While the floor of a new incline cutting was being cut down to the coal seam a mass of sandstone, 30 x 10 and from 1' to 6" thick, fell from the side at a height of 20 feet. The deceased were buried and killed instantly. The fall exposed a concealed "slip" in the side. Inspection and enquiry made.
64	16th January, 5 A.M.	Bararoo Mine, Jalgaon P.O., Bihar	East Indian Co., Ltd.	Coal	Ganpat Chaurat, (m), 24, <i>Leader</i> C/O S. S. Sumbhu Kor, Sumbhu (m), 26, <i>Coal cutter</i>	Coal	While engaged in carrying coal to the loading line a leader was struck and fatally injured by a mass of coal, 8 x 2 x 6", which fell from the side of a pillar at a height of 23 feet. Inspection and enquiry made.
65	21st January, 4 P.M.	Sadi Mine, Sitarampur P.O., Bengal	Messrs. Morari Malraj & Co.	Coal	C/O S. S. Sumbhu Kor, Sumbhu (m), 26, <i>Coal cutter</i>	Coal	A miner left his working place entered a closed gallery and began to cut coal beneath a stone band. A port on of the band about 6 x 2 6" x 1' thick, broke away from a height of 1 1/2 feet and partially buried him. He sustained internal injuries and expired within an hour. Inspection and enquiry made.
66	4th February, 10 A.M.	Dhanbaroo Mine, Patardih P.O., Bihar	Dhanbaroo Coal Co., Ltd.	Coal	Har Sahar Mahato (m), 37, <i>Tender coiler</i>	Coal	Following depollaring operations, deceased with another person was carrying a mass of coal that were being drawn from a working place, then a mass of coal, weighing about 8 tons suddenly fell from the side of an adjoin gallery. Deceased was buried under the fall and killed, while his companion received serious injuries. Inspection and enquiry made.
67	18th February, 4-50 P.M.	Kuturbaroo Mine, Girdih P.O., Bihar	Govt. of India State Railway Coal Department	Coal	Bachmanin Bhooia, (m), 37, <i>Coal-cutter</i>	Coal	While the extraction of a pillar was proceeding a mass of coal, 20 x 10 x 1' x 1' 6" x 6", fell against a person lying and dislodged it. The person struck deceased who was sitting about 1 foot away and killed him on the spot. Inspection and enquiry made.
68	26th February, 3-30 P.M.	Salaiya (Saharai) Mine, Magan P.O., Central Provinces	Dyer & Stone Lime Co. Ltd.	Line- stone	Bharat (m), 20 Ram Ratis (m), 30 Jawhar (m), 24 Sukh Deo, (m), 25, Hirdan (m), 50 Ram Nath (m), 40, Umrao, (m), 22, Mat Mohia, (m), 20, Mat Chaiti, (m), 19, <i>Labourers</i>	Line- stone	A large portion of the limestone and overhanging of a side of an open quarry unexpectedly collapsed and killed nine persons—seven men and two women. Inspection and enquiry made.

76	6th April 11 P M	Jordan Vance Salem P. O., Illino.	Neeress A. Schleg Brothers Ltd	Charles Reider, (w) 22 London	Coal
77	11th April 3 P M	William Mises Jefferson P. O., Illino.	J. S. Bauman	James Chanary, (w) 30 Queens on	Stone
78	14th April 6.10 A. M	Howard Vance, Jefferson P. O., Illino.	The Jackson Coal Co., Ltd	William J. Bryant, (w) 28, Coal cutter	Coal
79	2nd April 1 P M	Joshua Mises, Sharna P. O., Illino.	Joshua C. Sherry (1920, Ltd)	William J. Bryant, (w) 42 Coal cutter	Coal
80	21st April 11.15 A M	Lawrence Mline Hershelburg P. O., Linn.	J. I. & H. N. Law- son	Henry Gurd, (w) 4, Coal cutter	Coal
81	3rd May 11 M	Henry Mline Jennings P. O. Illino.	H. M. M. & P. A. Mugel	Maughl (w) 3, Coal cutter	Coal
82	7 M	Kenneth Mline Jennings P. O., Illino.	James Mline Aberdeen Ltd	James Mline (w) 2, Coal cutter	Coal
83	8 M	Howard Mline Jennings P. O. Illino.	Howard Mline Col	U. Mline (w) 2, Coal cutter	Coal

Deceased was hitting a tub of coal when a mass of coal amounting to several tons fell from the side of a pillar and killed him instantly. Inspection and enquiry made.

While deceased was attempting to lever down a boulder 6 x 1 x 6 from the side of a quarry 27 feet deep, it suddenly became dislodged and struck him. He received injuries which proved fatal 7 hours later. A concealed slip on the side was the cause of the fall. Inspection and enquiry made.

While a gang of miners and loaders was removing loose coal from a tunnel it was in a large quarry, a mass of overburden weighing about 10 cwt fell from a face at a height of about 10 feet. Increased was struck and killed instantly and a female loader was seriously injured. Inspection and enquiry made.

While the loader of a coal blaster from the side of a pillar under extraction, was about to be conveyed a mass of coal meaning about 1 1/2 cwt fell from the side at a height of 20 feet and deceased fell. He was killed instantly. Inspection and enquiry made.

While a gang of workers was at work on the slope of a quarry digging at 1 in 1 1/2 where extraction of coal was proceeding from dip to give a portion of the pillar measuring 25 x 10 x 1. Slipped. Deceased was turned and suffocated and two other miners received serious injuries. Inspection and enquiry made.

While miners were engaged in extracting a 'stock' of coal there were indications of a 'roof' weight in their working place and they all withdrew. One of them returned to recover his tools, and was killed instantly by a mass of coal 1 x 1 x 1 which fell from the side at a height of 9 feet. Had the overhanging coal been taken down before the miners were allowed to cut coal the accident would not have occurred. Inspection and enquiry made.

A mass of coal weighing about 10 cwt, fell off a ship in the corner of a pillar and deceased was he was passing with a basket of coal. He was killed instantly. Inspection and enquiry made.

A gang of workers was resting in a newly made quarry, 6 feet deep when a mass of side was about 7 cwt, fell on deceased. He sustained serious injuries to which the encounter 15 days later. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Details of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(b) Falls of sides—<i>contd.</i>						
69	27th February, 3:40 a.m.	Saltore Mine, Diberghat P. O., Bengal.	Burakur Coal Co., Ltd.	Karu Murah, (m.), 25, <i>Coal carrier.</i>	Coal	Person was sitting on a bench adjoining a depillaring pillar discharging three bags one of which struck him and killed him instantly. Inspection and enquiry made.
70	2nd March, 5:30 p.m.	South Kujama Mine, Bharla P. O., Bihar.	Dagdi Kujama Collieries Co.	Anu Rajwar, (w.), 32, <i>Coal carrier.</i>	Coal	Contrary to orders deceased undertook the side of a depillaring when a mass of coal, about 6' x 6' x 1' fell on him. He was killed instantly. Inspection and enquiry made.
71	3rd March, 9 a.m.	Pattabhiram Mine, Sydapuram P. O., Madras.	S. K. Neelakanteswararam	Konlapalli Subbaidu, (w.), 24, <i>Driver.</i>	Mina	While engaged in shewing down overburden in a quarry three drillers brought about a fall of rock measuring 12' x 6', and fell along with it. Deceased was buried and suffocated. It was ascertained serious injuries Inspection and enquiry made.
72	12th March, 7:30 p.m.	Jharia Khasa Mine, Jharia P. O., Bihar.	The Standard Coal Co., Ltd.	Kesho Murchi, (m.), 27, <i>Coal carrier.</i>	Coal	While drilling a shot hole, deceased was seriously injured by a piece of stone which slid down from an old roof. Deceased was injured and suffocated. Inspection and enquiry made.
73	15th March, 2 p.m.	Gulla Haldi Mine, Khatangsheri P. O., Central Provinces.	Mewar, Chauram Jerni	Jagan Panso, (m.), 42, <i>Labourer.</i>	Manganese Ore	Deceased was buried 7 days later. Inspection and enquiry made.
74	16th March, 4 p.m.	Hindulghat Mine, Hindulghat P. O., Baluchistan.	The Baluchistan Chrome Co., Ltd.	Sultan, (m.), 27, <i>Labourer.</i>	Chromite	While three men were working in a tunnel, a mass of stone from the side of a pillar at a height of about 10' x 6' x 2' fell on him from the side from a height of about 2 ft. and suffocated him. Inspection and enquiry made.
75	30th March, 10-15 p.m.	Kusloro Mine, Kusloro P. O., Bihar.	Raueganje Coal Association Ltd.	Thandmoni Mahant, (f.), 25, <i>Coal carrier.</i>	Coal	While engaged in carrying coal from a working place deceased was struck by a mass of coal, 6' x 4' x 5' which fell and caused serious injuries to which she succumbed two hours later. Inspection and enquiry made.

76	6th April 11 P M	Joceta Mines Duma P O, Bihar	Chebie Beldar, (m) 22 Leader	Coal
77	11th April 3 P M	Talharan Mines Talharan P O, Bihar	Puran Chamar (s) 30 Quarryman	Stone
78	11th April 4 P M	Minors Mines, Talharan P O, Bihar	Lakshman I Aswar (s) 18 Coal cutter	Coal
			The Eastern Coal Co Ltd	Coal
			Iodna Colliery Co (D.O., Itt)	Coal
			Cullo D Beldar (m) 42 Coal cutter	Coal
			K J Har Gond, (m) 43 Coal cutter	Coal
			M J Har Gond, (m) 43 Coal cutter	Coal

Deceased was filling a tub of coal when a mass of coal amounting to several tons fell from the side of a pillar and killed him instantly. Inspection and enquiry made.

While deceased was attempting to lower down a boulder of 3 x 1 - 6 from the side of a quarry, 27 feet deep, it suddenly became dislodged and struck him. He received injuries which proved fatal 7 hours later. A concealed slip on the side was the cause of the fall. Inspection and enquiry made.

While a gang of miners and loaders was removing loose coal from a fenced off area in a large quarry, a mass of overburden weighing about 10 cwt fell from the face at a height of about 60 feet. Deceased was struck and killed instantly and a fine ale loader was seriously injured. Inspection and enquiry made.

While the loading of coal blasted from the side of a pillar under extraction was about to be commenced a mass of coal measuring about 3 1 - 5 cwt, fell from the side at a height of 25 feet on to deceased. He was killed instantly. Inspection and enquiry made.

While a gang of miners was at work on the slope of a quarry dipping at 1 in 12 where extraction of coal was proceeding from dip to rise, a portion of the pile measuring 25 x 10 x 1, slipped. Deceased was buried and suffocated and two other miners received serious injuries. Inspection and enquiry made.

While miners were engaged in extracting a 'stock' of coal there were indications of a weight on their working place and they all withdrew. One of them returned to recover his tool and was killed instantly by a mass of coal of 3 x 1 which fell from the side at a height of 9 feet. After the overhanging coal had been taken down before the miners were allowed to cut coal the accident would not have occurred. Inspection and enquiry made.

A mass of coal weighing about 10 cwt, fell off a slip in the face of a pillar on to deceased. He was taken with a fractured skull. He was killed instantly. Inspection and enquiry made.

A mass of coal weighing about 10 cwt, fell off a slip in the face of a pillar on to deceased. He was taken with a fractured skull. He was killed instantly. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks.
FALLS OF ROOF AND SIDES—<i>contd.</i>						
(b) Falls of sides—<i>contd.</i>						
84	21st May, 4.30 P.M.	Central Jharia Mine, Jharia P. O., Bihar.	Central Jharia Col- liery Co.	Sreenath Mahata, (m.), 29, <i>Earth-cutter.</i>	Coal	While engaged in the removal of overburden in a quarry an earth-cutter was buried by a mass of earth, 24' x 10' x 3', which fell from the side. He died from suffocation before he could be released. If the side had been properly inspected and enquiry made.
85	3rd June, 7 P. M.	Bejjith Mine, Sitarampur P. O., Bengal.	Equitable Coal Co., Id.	Chand Moni han, (f.), 36, <i>Loader.</i>	Mej- Coal	While a loader was filling her basket with coal obtained from the floor of a dip gallery, some 10 tons of coal fell without warning from the side of a pillar at a height of 12 feet. She was buried by the fall and killed instantly. The fall exposed a slip. Inspection and enquiry made.
86	10th June, 1 A. M.	Karari Mica Mine, Jhajha P. O., Bihar.	K. K. Basu	Mangur Meah, (m.), 38, <i>Daily labourer.</i>	Mica.	Decensed with others was working in an underground gallery when a fall of side took place. He was caught by the fall and sustained fatal injuries.
87	18th June, 4 P. M.	Garcaria Mine, Banjara P. O., Bihar.	Mosser, Bujinath Jugalkishore.	Mokha Pashi, (m.), 40, <i>Coal-cutter.</i>	Coal.	While the extraction of a pillar was proceeding in an underground 28' thick, a miner was struck and fatally injured by a mass of coal which fell on him from the side. Inspection and enquiry made.
88	23rd June, 4.30 P. M.	Lodna Mine, Jharia P. O., Bihar.	The Lodna Colli- ery Co. (1920), Ltd.	Dasu Pasi, (m.), 43, <i>Loader.</i>	Coal.	While coal was being loaded from a depillaring area in a seam 22 feet thick, a mass of coal 35' x 18' x 3'-6", fell from a pillar at the side of the loading line. Decensed was killed instantly. Inspection and enquiry made.
89	29th June, 4.30 A. M.	Kupharpara Mica, Girdih P. O., Bihar.	Government of India State Railway Coal Department.	Babu Lal Chamar, (m.), 24, <i>Coal-cutter.</i>	Coal.	While decensed was filling a basket with coal in a gallery a "bump" occurred in the propulatory to depillaring, a weighing about 5 to 6 cwt. to fall from the side. Decensed was caught by the fall and fatally injured. Inspection and enquiry made.

90	24th July 5 30 P M	Jamshoda Mine, Jailgora P O, Bihar	The Tata Iron & Steel Co., Ltd	Jharn Daas (m) 34 Coal-cutter	Coal
91	26th July 2 P M	Kargali mine Bokaro P O Bihar	State Railways Coal Department	Fulbarhi (f) 30, Loader	Coal
92	6th August 1 P M	Dharrapoh Mine Keranda P O, Bihar	Dharrapoh Colliery (o) Ltd	Sital Pashi (m) 3, Coal-cutter	Coal
93	11th August 5 30 P M	Mahapalpur Mine Jharna Telaiya P O, Bihar	Chaturam Darsanam	Budhan Yeab (m) 21, Dump spilling cocks	Mica
94	13th August 12 Noon	Mindidi Mine Suya P O, Bihar	Barrakur Coal Co., Ltd	Bahan Bhuaya (m) 32 Loader	Coal
95	21 August, 7 40 A M	Pandeh Mine Suya P O, Bihar	S N Daw & Co	Anand Ram Bilaspuri (m) 34, Coal-cutter	Coal
96	22nd August 2 30 P M	Pretoria Mine Charampur P O, Bengal	Seebpur Coal Co Ltd	Dekari Lach (m) 26 Coal cutter	Coal
97	26th August 12 30 P M	Katore (Barragari Section) Mine Keranda P O Bihar	Haneegunge Coal Association Ltd	Hanu Darsi (m) 20, Coal cutter	Coal
98	8th September 1 30 P M	West Jamuria Mine, Charampur P O, Bengal	West Jamuria Coal Co Ltd	Malho Mean (m) 38, Loader	Coal

While a miner was standing on a ladder layering down side coal after blasting, he overbalanced and fell down the ladder. Before he could recover himself a mass of coal fell from the side from a height of about 6 feet and in flicted injuries which proved fatal five hours later. Inspection and inquiry made.

Deceased was killed in an open working by a piece of stone, 1-6 x 8 x 6 which fell from the side at a height of about 90 feet. Inspection and inquiry made.

While a miner was engaged in removing floor coal in a gallery 14 ft wide and 5 ft high in the immediate vicinity of a pillar, a mass of coal fell from the side at a height of about 10 ft. He was seriously injured and died 3 months later. Inspection and enquiry made.

Deceased went into an abandoned excavation to recover his pick and while there was buried by a mass of earth 1-6 x 6 x 3 thick which fell from the side at a height of 13 feet. He was dead when extricated. Inspection and enquiry made.

While a miner was digging the side of a pillar in a depillar- ing area, he lodged a mass of coal from a height of 18 feet. Deceased who was attending about 10 feet away from the pillar, showing a light for the miner was struck by a piece of coal 2 x 4 x 1 and fatally injured. Inspection and enquiry made.

Deceased was killed by a fall of a mass of earth from the side of a quarry at a height of 7-6". Inspection and inquiry made.

While deceased was dressing down side coal loosened by blasting his crowbar slipped and he fell on the floor. A mass of about 7 cwt of coal fell from a height of 8 ft and struck him. He sustained serious injuries to which he succumbed 3 hours later. Inspection and inquiry made.

During the extraction of a pillar in a seton 7-6" thick a miner was undercutting when a mass of coal weighing about 10 cwt fell off a pronounced cleary go plane and a slip which was at right angles to it and he sustained fatal injuries. Inspection and inquiry made.

While loading coal in a depillar area a ladder was struck by a mass of coal about 50 lbs in weight which fell on expectly from the side of a stock. He sustained injuries which proved fatal eleven days later. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mine of mineral worked.	Cause of accident and remarks.
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FALLS OF ROOF AND SIDES—*contd.*

(b) Falls of sides.—*contd.*

109	10th September 11 a.m.	East Jambud Mine, Muzaffargarh P.O., District.	East Jambud Coal Concern.	Phungu Maingha (20 yrs), Engineer.	Coal.	While engaged in cutting the side of a pillar, a miner was struck by a mass of coal, 8' x 5' x 1'—6", which fell from the side. He was killed instantly. Inspection and enquiry made.
110	11th September 11 a.m.	North Main, Muzaffargarh P.O., District.	S. K. Sharma and 'Rudari' Group, Muzaffargarh.	Shua.	Shua.	While working in an open excavation, 6 feet deep, a miner was partially buried by a fall of side, 3' x 2' x 2' thick, which fell on him from a height of 3 feet. He sustained serious internal injuries and died thirteen days later. Had the sides of the excavation been properly supported or stepped the accident would have been avoided. Inspection and enquiry made.
111	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While two miners were 'robbing' coal from the side, or a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
112	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
113	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
114	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
115	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
116	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
117	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
118	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
119	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.
120	11th September 11 a.m.	Shanah, Muzaffargarh P.O., District.	Shanah, Muzaffargarh P.O., District.	Shanah.	Shanah.	While a miner was at work in a 'trimming level', a mass of coal, weighing about 2 tons, was struck by a piece of coal which burst from the side of a pillar. He was fatally injured. Inspection and enquiry made.

108	21st October, 8.45 P M	Alkusa North Mine Khandwa P O, Bihar	The Insurance Association Ltd	Basu Mauphi (m), 32 Loader	Coal	A gang of miners and laborers went into a gallery which was fired off because the side was dangerous due to the pres- ence of a small fault. They robbed the side and corner of a pillar and while they were loading a mass of coal 3 x 6 x 1-2 fell off the fault killing one of the loaders instantly. Inspection and enquiry made.
105	22nd October 12.30 P M	Malrao Chotola Mine Bhatnagar P O, Bihar	Burrainur Coal Co., Ltd	Dharam Mailla (m), 39, Coal-cutter	Coal	While extracting a 'book' of coal 9 feet high, that was left to support a roof in a gallery a miner was struck by a mass of coal 3 x 2 x 2, which he had dislodged from the 'book', and received serious injuries to which he suc- cumbed 12 hours later. Inspection and enquiry made.
107	22nd October 1 P M	Sarampur Mine Gurudih P O, Bihar	The Government of India	Banhu Maia (m), 23 Coal-cutter	Coal	In a roadway 10 ft high a miner was standing on a ladder dressing the side near the roof with a crowbar. He over- balanced and fell off the ladder and a block of stone, 1-2 x 1 x 1, which he had been dressing, fell on his left leg, causing injuries which proved fatal four days later. Inspection and enquiry made.
106	26th October, 2 P M	Bararee Mine Jalgaon P O Bihar	The East Indian Coal Co. Ltd	Lala Rai (m), 40 Coal-cutter	Coal	While a miner was engaged in cutting a recess in the side of a pillar at the site of a fire stopping a mass of coal weighing about 2 tons fell from the side. He sustained fatal injuries. Inspection and enquiry made.
109	29th October, 2 P M	Jamnuri Mine, Champur P O Bengal	Equitable Coal Co., Ltd	Loda Mauphi (m), 30 Stone-dresser	Coal	A stone dresser was struck and fatally injured when a small piece of stone fell unexpectedly from the corner of a pillar from a height of 6 1/2 feet. Inspection and enquiry made.
110	1st November, 2 A M	Dharmo Main Mine Sitapur P O, Bengal	Dharmo Main Coal Co., Ltd	Padam Mahindur (m), 30 Coal-cutter	Coal	While descending was carrying a basket of coal a mass of coal, 9 x 1 x 1-5 fell on him from a canalized 'ship' in the corner of a pillar at a height of 12 feet. He sustained injuries from which he died seven hours later. Inspection and enquiry made.
1	4th November 5.40 P M	Kewari Main Khandwa P O Bihar	The East Indian Coal Co. Ltd	Bhonda Bishwar (m), 25 Loader	Coal	While a loader was lashing an empty tub along a level road a mass of coal weighing about 3 cwt fell from the side from a height of 10 feet. He was killed instantly. Inspection and enquiry made.
12	4th November, 8.30 P M	Dharmajaha Mine Khandwa P O Bihar	Dharmajaha Colliery Co. Ltd	Narayan Chatur (m), 30 C I Miner	Coal	While descending was resting near the side of a pillar, a piece of coal 2 x 1 x 1-1/2 fell from the side at a height of 2 1/2 feet and struck him. He sustained serious injuries and died 35 hours later. Inspection and enquiry made.
3	10th November 10.30 A M	Victoria West Mine Bhatnagar P O Bengal	The New River Dhoom Coal Co Ltd	Nelakutaram Lal (m), 41 Mining worker	Coal	Decreased was descending loose coal from the side of a pillar 12 feet high when a piece of coal fell on his foot inflicting serious injuries. Pneumonia supervened and he died eleven days later. Inspection and enquiry made.

APPENDIX II--*contd.*

Fatal Accidents during the year 1937--*contd.*

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks
FALLS OF ROOF AND SIDES--<i>contd.</i>						
(b) Falls of sides--<i>contd.</i>						
114	24th November, 11 A.M.	Jumadoba Mine, Jharra P. O., Bihar.	The Tata Iron and Steel Co., Ltd.	Durga Veah, (m.), 27, Wangha Neeh. (m.), 28. Coal carriers.	Coal	The deceased with others were loading fallen coal from a gallery 12 feet high preparatory to getting supports and commencing dovetailing operations. When a mass of coal, 15' x 4' x 8' suddenly fell from the side of a pillar the deceased was killed on the spot and another person sustained serious injuries. It is presumed that "weighing" from an adjoining roof caused the coal to fall without any warning. Inspection and enquiry made.
116	30th November, 1 P.M.	Lodna Mine, Jharra P. O., Bihar.	Lodna Colliery Co., (1920), Ltd.	Samrat Pashi, (m.), 42. Coal cutter.	Coal	After blasting, a miner was dressing loose coal from the side of a pillar under extraction by standing on a ladder. When a mass of coal weighing about a ton suddenly fell, he was struck and sustained injuries which proved fatal shortly afterwards. Inspection and enquiry made.
116	14th December, 4 P.M.	Partabpur Mine, Hazaribagh P. O., Bihar.	Masrhal Murarka.	Dhram Chamar, (m.), 30, Dush Chamra, (m.) 20. <i>Miners.</i> Sonar Kahar, (m.), 15, Domestic servant.	Mica	The three deceased were killed by a fall of side in an open excavation for mica. Inspection and enquiry made.
117	21st December, 12-10 P.M.	Gua Iron Ore Mine, Gua P. O., Bihar.	The Indian Iron & Steel Co., Ltd.	Bharat, (m.), 39, <i>Miner.</i>	Iron Ore.	Contrary to orders deceased was removing ore from a bench in a quarry when he released a boulder, 4' x 3' x 1'-3', which suddenly turned over and crushed him against the side. He was killed almost immediately. Inspection and enquiry made.
118	24th December, 9 A.M.	Lalki Samselaria Mine, Jhumer-Telaia P. O., Bihar.	Chaturam Harsan-ram.	Budhni Mohin, (f.), 50. <i>Labourer.</i>	Mica.	While working in an excavation 4 feet deep made in an old dump, deceased was buried by a fall of loose side. She was dead when extricated. Inspection and enquiry made.

IN SHAFTS (ROPES AND CHAINS BREAKING)—2 deaths

119	30th March, 12 Noon	Dohari Mine Baran P. O., Bihar	Kashyap Pita Mohar, Receiver (m) 45, Charge man	Coal
120	27th May, 5 P. M.	Rajinath Mine, Kishanganj P. O., Bengal	Rajinath Collieries Ltd Nadu Yeab (m) 22 Coal-walker	Coal

Deceased was being raised in a cane bucket up a sinking shaft 20 feet deep when the steel winding rope 1" diameter broke and he fell to the bottom of the shaft. He sustained serious injuries to which he succumbed five days later. Inspection and enquiry made.

In shaft 266 feet deep a cage containing six persons in closing deceased had been raised about 50 feet above the shaft bottom, when the end links of two bridle chains broke. This caused the cage to tilt with the result that deceased fell from the cage to the shaft bottom and sustained injuries to which he succumbed almost immediately. Inspection and enquiry made.

IN SHAFTS (WHILEST ASCENDING OR DESCENDING BY MACHINERY)—5 deaths

121	20th August 7 50 A. M.	Bankamula 7 and 8 Pita Mine Lachampur P. O., Bengal	(1) Kali Mohar (m) 33 (2) Basantab Dass (m) 22 (3) Bhouda, Pami (m) 40, Pumpman	Coal
122	26th September 10 P. M.	Lodna Mine Baran P. O., Bihar	The Lodna Colliery Co (1220), Ltd Murat Barin, (m) 50, P. M. T.,	Coal
123	4th October 5 P. M.	Ghusuck Mine Kishanganj P. O., Bengal	Gusack Coal Co., Ltd Kashu Bourn (m) 30 Omelier	Coal

While three pumpmen were ascending a shaft 52½ feet deep in a sinking bucket the bow of the bucket broke resulting in the three men being thrown out and falling to the bottom of the shaft—a distance of 210 feet. They were killed instantly. Expert examination revealed that the fracture of the mild steel bow was due to "corrosive fatigue" coupled with shock. Inspection and enquiry made.

While ascending a sinking shaft a fitter sat on the rim of a kibble and at a windshaft insect where there was a landing platform he fouled a girder and fell out of the kibble to the bottom of the shaft a distance of 150 feet. He was killed instantly. Inspection and enquiry made.

While ascending a shaft 328 feet, deceased fell out of the cage to the bottom of the shaft and was killed instantly. Inspection and enquiry made.

IN SHAFTS (FALLING DOWN SHAFTS)—1 death.

124	30th April, 1 40 A. M.	Kushtore Mine Kasaulda P. O., Bihar	The Faheerunge Coal Association Ltd Shamail Kaur (m) 22, Tiptier Trolleyman.	Coal
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While deceased was helping to operate a single tub rotary tripper at the top of a shaft he put 70 ft deep he slipped and fell through the open platform of the tripper into the shaft. He succumbed to his injuries three hours later. If shovels or expanded metal had been provided on the platform and sides of the tripper, the accident would have been avoided. Inspection and enquiry made.

IN SHAFT (MISCELLANEOUS)—(4 deaths)

125	17th June 1 10 A. M.	Nethani Mine Sitarampur P. O., Bengal	Alakh Coal Co. Ltd Barhan Dholi (m) 22, Labourer	Coal
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Deceased was standing inside a cage at the top of a shaft recovering rails which were being loaded when a rail, which was handed to him slipped and struck him. He sustained serious injuries to which he succumbed seven days later. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*co. Id.*

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mine or worked.	Cause of accident and remarks.
IN SHAFT (MISCELLANEOUS)—(4 deaths)— <i>contd.</i>						
126	19th June, 5-30 P.M.	Badia Mine, Ghazala P. O., Bihar.	Indian Copper Corporation, Ltd.	Dabruji, (m.), 30, Trammaner.	Copper.	Decensed with three others was working in a shaft from a cradle suspended from a crab winch. As the cradle was being lowered the gearings of the winch became accidentally disengaged and the cradle despite the brake, descended the shaft through a distance of 155 feet and plunged into water, about 15 feet deep, in the sum. Decensed was dead when recovered. Inspection and enquiry made.
127	30th October, 11 A.M.	Mosaboni Mine Ghazala P. O., Bihar.	Indian Copper Corporation, Ltd.	Abdul Gafur, (m.), 47, Mechanic Mistry, shop	Copper.	While engaged in selecting the ribs in an inclined shaft for putting in additional rollers, decensed was accidentally run over by the descending skip and fatally injured. Inspection and enquiry made.
128	29th November, 3 P.M.	Modern Satgram Mine, Kusanda P. O., Bihar.	Modern Satgram Coal Co., Ltd.	Sudan Bauri, (m.), 21, Labourer.	Coal.	While a column of exhaust and delivery steam pipes was being lowered down a sinking shaft 350 feet deep by means of a crab winch, the hook of the pulley block suddenly broke, allowing the column to fall down the shaft. Decensed, who was watching the lowering operation, was struck by some of the detached pipes and fatally injured. Inspection and enquiry made.
129	6th October, 10-30 A.M.	Dna Mine, Jharia P. O., Bihar.	North-West Coal Co., Ltd.	Mahabir Singh, (m.), 47, Akal Mohini, (m.), 35, Shyft-sinkers.	Coal.	After firing 7 summing holes each containing 1½ ozs. of gelignite in a sinking shaft, 126 feet deep, the kibble was run up and down for half an hour to clear the smoke. The sinkers then resumed work and worked in the shaft for three hours. They were affected by nitrous oxide fumes, the extreme symptoms developing several hours later. Two of them afterwards died and the others recovered. Inspection and inquiry made.

SUFFOCATION BY GASES—(2 deaths).

BY EXPLOSIVES—(15 dec/ks)

130	11th January, 11 P.M.	Chandametta Mine, Parsia P. O., C P	Pench Valley Coal Co., Ltd	Dulay Mehta, (m) 32, Coal cutter.	Coal	Deceased left his working place, passed through a fence and entered an area where blasting operations were being carried on. He was struck and killed instantly by a piece of coal projected by the shot. Inspection and enquiry made.
131	9th February, 1 P.M.	Kalyanpur Lime stone Mine, Bangari P. O., Bihar	Kalyanpur Lime Works, Ltd	Dalveshar Mallah, (m) 23 Shot firer	Lime- stone	During blasting operations a piece of stone, 5 x 5' 4" was projected and struck deceased on the head and killed him instantly. Inspection and enquiry made.
132	3rd March, 7-30 A.M.	Kathera Stone Mine, Rajmahendry P. O., Madras	A. Lakshminaraswamy Naidu	Chella Subbaidu, (m) 45 Stone breaker.	Stone	During blasting operations deceased, who failed to take shelter, was struck by a piece of rock which was projected by a shot fired at a place, 279 feet distant. He sustained injuries to which he succumbed 35 hours later. Inspection and enquiry made.
133	10th March, 2-30 P.M.	Nimrod Mine, Kekin P. O., Kajpattan	Labb Chand & Co.,	Harjee Dargoo, (m) 34, Shot firer.	Mica	While charging a shot hole a premature explosion of gunpowder took place and fatally injured deceased. Inspection and enquiry made.
134	25th April, 2 A.M.	Newton Chackla Mine, Parsia P. O., C P	Newton Chackla Collieries, Ltd	Mohial Gani, (m) 25, Coal-Cutter.	Coal	Deceased was assisting his companion in stemming a shot-hole charged with gunpowder when the shot exploded and fatally injured him. It is presumed that either of them inadvertently set fire to the shot from the open lights that were burning closely. Inspection and enquiry made.
135	16th May, 12-30 P.M.	Wah Mine Wah R. S. P. O., Punjab	The Associated Cement Co., Ltd	Dauka, (m) 34, Shot firer.	Lime- stone	While a shot hole was being charged a premature explosion of the gunpowder took place and seriously injured the shot firer and two other persons sitting near him. The shot firer succumbed to his injuries ten days after the accident. Inspection and enquiry made.
136	18th May, 5 P.M.	Khas Jimgorra Mine, Jharra P. O., Bihar.	B. K. Chakraborty	(1) Dinkar Bauri, (m) 39 Shot firer, (2) Mahirud Bouri, (m) 38, (3) Heila Bouri (m) 23, Coal cutters	Coal	While preparations were being made for blasting in an underground gallery, a shot firer and four others were seriously burnt by an ignition of a quantity of gunpowder that was placed in a metal case. Subsequently three of them succumbed to their injuries. Inspection and enquiry made.
137	15th August, 12.15 P.M.	Darla Mine, Jannoredo P. O., C P	Amalgamated Coal fields, Ltd	Parun Johar, (m) 32, Coal cutter	Coal	Deceased disregarding the orders of a shot firer, passed through a fence and went to a gallery where a shot had hung fire. He was within 20 feet of the face when the shot exploded. He sustained serious injuries to which he succumbed 17 days later. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accident during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Number, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks.
BY EXPLOSIVES—(15 deaths)—<i>contd.</i>						
138	14th August, 1 P.M.	Rampur Mine, Rampur Colliery P. O., Orissa.	Himfir, Rampur Coal Co., Ltd.	Harna Gauda, (m.), 60, Coal-cutter.	Coal	Deceased delayed after lighting two shots in a gallery and when the charges exploded he sustained serious injuries to which he succumbed shortly afterwards. Inspection and enquiry made.
139	2nd September, 2-30 P.M.	Sindih Mine, Kalkaguch P. O., Bihar.	Sindih Coal Concern, Ltd.	Parahulo Koley, (m.), 32, Coal-cutter.	Coal	Deceased went to a place where a wildfire had covered and relighted the face of the charge. The shot being fired and as he was returning to the place the shot exploded. He sustained fatal injuries. Inspection and enquiry made.
140	13th September, 6 A.M.	Kargali Mine, Bokaro P. O., Bihar.	State Railways	Akin Mahato, (m.), 30, Shot-firer's cooly.	Coal	While deceased was assisting in blasting operations, with liquid oxygen explosion, one charge in a round of five exploded prematurely and he sustained injuries which proved fatal. Inspection and enquiry made.
141	7th December, 4-30 P.M.	Sri Venkata Sitarama-keshaba Mica Mine, Sydapatnam P. O., Madras.	Bahmur Subbaramuth Garu.	Esvururu Yallagudi, (m.), 23, Cooly.	Mica	While removing loose rock in an underground gallery after blasting operations a misfired charge was exploded, resulting in serious injuries to deceased to which he succumbed twenty days later.
142	20th December, 5-15 A.M.	Gua Iron Ore, Kopeway (H. D. Bara Section), Gua P. O., Bihar.	The Indian Iron and Steel Co., Ltd.	Bannu, 21, Master.	Iron Ore	A piece of stone was projected a distance of 372 feet during blasting operations in a quarry and struck deceased who was retiring to a place of safety in an adjoining quarry. He received injuries which proved fatal five days later. Inspection and enquiry made.
143	14th January, 9-50 P.M.	Newton Chiohli Mine, Purnia P. O., Central Provinces.	Newton Chiohli Collieries, Ltd.	Bhannihal Dhubi, (m.), 20, Truck-drier.	Coal	While deceased was hand-shunting an empty tub at the bottom of a haulage incline, he was caught by a train of tubway tubs and killed instantly. Inspection and enquiry made.

HAULAGE—(33 deaths).

Fatal Accidents during the year 1937—contd.

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mine or works.	Cause of accident and remarks.
HAULAGE—(33 deaths)						
152	7th 9-15 p.m. May.	Newton Chiekh Mine, Patna P. O., Central Province.	Newton Chiekh Collieries, Limited	Jegannath Kirtar, (m), 35, Trolley-driver	Coal	While awaiting the arrival of empty tubs deceased was standing against a loaded set with his body between two tubs. Another set of loaded tubs came down and bumped against the stationary tubs. He sustained serious injuries to which he succumbed the following day. Inspection and enquiry made.
153	25th 4 a.m. May.	Sripur Mine, Kalighat P. O., Bengal.	Lodna Colliery Co (1929), Ltd.	Bisu Bauri, (m), 35, Driver	Coal	On an incline haulage, while deceased and two teamsters were reversing a loaded tub, a clipman brought down two more sets of loaded tubs in quick succession. When bumped into the third set collided with the second which succumbed to his injuries 5 days later. Inspection and enquiry made.
154	29th 3-45 p.m. May.	Victoria West Mine, Barhar P. O., Bengal.	New Bhacchoban Coal Co., Ltd.	Bisra Nath Mishra, (m), 35, Labourer.	Coal	While a set of six loaded tubs was being drawn up a haulage road dipping at 1 in 6, the haulage rope broke, and the tubs ran wild. Deceased, who, with three other persons was travelling on the haulage road contrary to orders, was struck by the set and fatally injured. Inspection and enquiry made.
155	4th June 1937, 10 a.m.	Gandudih Mine, Kusmuda P. O., Bihar.	Central Colliery Co. Alkusa	Bharos Peshi, (m), 35, Trolleyman.	Coal	While a train of 11 loaded tubs was about to be lowered down a haulage plane dipping at 1 in 5, the drawbar of the second tub broke, releasing the leading 12 tubs which ran wild. Deceased, who came to the leading tubs which ran the train was lowered was struck by the runaway tubs and fatally injured. Inspection and enquiry made.
156	23rd June, 10 a.m.	Khovra Mine, Khovra P. O., Faangub.	Government of India.	Barkhurdar, (m), 55, Haulage attendant.	Brookbank	A loaded tub ran down from the brow of an incline and fatally injured deceased, who was working at the bottom of the incline. Inspection and enquiry made.

137	27th Janu 2-15 A M	Mahakul Mine Chandua P O, C P	Abubakar Abdul- rehman & Co	Chaitin Gond (m) 20 Coal filler	Coal
83	7th July, 12-30 P M	Kheera Mine, Kheera P O, Punjab	Government of India	Mold Akbar, (m) 18 Miner	Booksalt
59	23rd July 12-15 P M	Dalla Mine Jandoo P O, C P	Amalgamated Coal- fields Ltd	(1) Bhano Ahiran, (f) 24 (2) Ashri Ahiran, (f) 20 Tub fillers	Coal
60	26th July, 4 P M	Mathan Mine Sistampur P O, Bengal	Aldia Coal Co, Ltd	Ram Charan Mondal (m) 30, Timmer	Coal
52nd August, 5-30 P M		Karrai Mine Bokaro P O, Bihar	State Railways Coal Department	Mathan (f) 20, Loader	Coal
62	3rd August 11-30 A M	Jamuna Mine Chaurapur P O, Bengal	Bankhala Co Ltd	Kisto Das, (m) 42 Tub-checker	Coal
th August 2 P M		Lorabod Mine Banspur P O, Bihar	Barralur Co, Ltd	Narain Asai, (m) 33 Labourer	Coal

On the main haulage road of an incline, deceased was run over by an oncoming set of loaded tubs. He sustained fatal injuries and died within a few minutes. It is presumed that he met with the accident while attempting to cross the tram line in front of the moving set. Inspection and enquiry made.

A loaded tub ran over the foot of deceased causing slight injuries. Trimmer apprehended and he died ten days after the accident. Inspection and enquiry made.

While a set of six loaded tubs was being hauled up an incline with a variable gradient, the rope broke and allowed the set to run back. The deceased were caught by the runaway tubs and fatally injured. Inspection and enquiry made.

While a set of loaded tubs was being hauled up an underground haulage road with a gradient of 1 in 6 the set became derailed at a curve by a sudden jerk on the rope. Deceased who was riding on the set without any other was thrown off and fatally injured. Inspection and enquiry made.

While a tipping tub loaded with stones was being pushed along a tram line in the top bench of a quarry it got derailed and tipped over. A piece of stone thrown from the tub rolled down from the top bench and fell on the head of deceased from a height of about 25 feet. She sustained injuries which proved fatal two days later. Inspection and enquiry made.

While standing on some loaded tubs a tinner left a loaded tub standing on an incline haulage road, dipping at 1 in 15. On bringing down the next tub he and his companion bumped it so violently against the stationary tub that both the tubs ran downhill. The runaway tubs travelled a distance of about 120 feet and caught deceased, who was attempting to cross the line. He sustained injuries which proved fatal two days later. Inspection and enquiry made.

While two trolleys carrying long steel pipes were being lowered down a haulage road dipping at 1 in 4 the main rope coupling the two trolleys ran amiss. Deceased who was accompanying the trolleys was struck and seriously injured by the runaway trolley. He succumbed to the injuries six days later. If the trolleys had been coupled together by means of a stout chain the accident would have been avoided. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of person killed.	Name of mineral worked.	Cause of accident and remarks.
HAULAGE—(33 deaths).—<i>contd.</i>						
164	26th August, 5 P.M.	Samla Govindpur Mine, Pandureswar P. O., Bengal.	Samla Gobindpur Collieries Co.	Kishore Jaisi, (m.), 20, Underground Tinsmith.	Coal	On a train, while stopping at a line, the road set a loaded tub in motion and the tub, by its own weight, rolled down the track. The tub, which was loaded with coal, rolled down the track and struck the tub, which was standing at the line, killing him instantly. Inspection and enquiry made.
165	15th September, 10-10 A.M.	Mosaboni Mine, Ghatsila P. O., Bihar.	Indian Copper Corporation Limited.	John, (m.), 30, Purup attendant.	Copper	While an empty ship, weighing about 6 cwt., was about to be lowered in a sinker, it was dipping at 10°; the rope broke inside the socket of the capstan and the ship ran wild. Deceased, who was going down the winch, was struck by the runaway ship and killed instantly. Inspection and enquiry made.
166	1st October, 5-30 A.M.	Dalia Mine, Jumnordeo P. O., C. P.	Amulnaramated Coal-fields Ltd.	Nirpal Lodi, (m.), 30, Tinsmith.	Coal	While a trolley was being pulled across a haulage road with a gradient of about 1 in 10, it was run over and killed by a loaded tub which gravely injured it underneath down the road. Inspection and enquiry made.
167	7th October, 9-0 A.M.	Kusore Mine, Kusurda P. O., Bihar.	The Kancungu Coal Association Ltd.	Purnim Mishra, (m.), 22, Coal-cutter.	Coal	While a miner was walking at the side of a level haulage road the first mine-car of a set of 6 loaded cars attached to an electric locomotive became derailed. He was knocked down and received internal injuries to which he succumbed 7 days later. Inspection and enquiry made.
168	13th October, 3-30 P.M.	Jaghir Mine, Salem P. O., Madras.	The Magnesite Syndicate Ltd.	Purnam Annigoundan, (m.), 35, Cooly.	Magnesite	Deceased was knocked down by a trolley on a tram-line and sustained fatal injuries.
169	23rd October, 2-30 P.M.	Khowra Mine, Khowra P. O., Punjab.	Government of India.	Budha, (m.), 40, Tinsmith.	Rocksalt	Deceased was walking between two loaded tubs which were in motion. He was overthrown by the rear tub and was injured seriously. He succumbed to his injuries six days later. Inspection and enquiry made.

170	10th November, 6-12 P M	South Tarna Mine, Bharua P O, Bihar	South Tarna Colliery, Co., Ltd	Shivan Dorad, (m), 30, Workmen	Coal
171	21st November, 11 35 P M	Sitalpur Mine, Sitalpur P. O., Bengal	Sitalpur Coal Co., Ltd	Kalo Maunha, (m), 32, Coal-cutter	Coal
172	22nd November, 5-50 P M	Bararee Mine, Jesalgora P. O., Bihar	East Indian Coal Co., Ltd	Parbil Mohato, (m), 28, Coal-cutter	Coal
173	6th December, 11-15 A M	Dankamula Mine, Charanpur P O., Bengal	Bengal Coal Co., Ltd	Dulhu Panha, (m), 37, Loader	Coal
174	31st December, 12 Noon	New Sadamadh Mine, Patilarch P O., Bihar	New Sadamadh Colliery Ltd	Hari Ram Mahato, (m), 30, Tress line repairer	Coal

UNDERGROUND MACHINERY—(1 of each)

175	20th February 5 A M	Topost Mine Topost P O., Bengal	Bansara Coal Co., Ltd	Bhabun Bourma, (f), 40, Barker	Coal
176	1st January 2-30 P M	Bolano Mine Bolero P O., Bihar	E I B and B N R	Punco Tanti, (m), 40, Coal-cutter	Coal

SUNDRIES UNDERGROUND—(2 of each)

While a set of three full tubs was being hauled up a road rising at 1 in 4, the rope broke and the tubs ran main. Deceased was struck and fatally injured by the runaway tubs. Inspection and enquiry made.

While a set of ten empty tubs was being lowered down a gradient of 1 in 15, the leading four tubs became uncontrolled and ran wild. They ran into a working level and killed deceased who was waiting there for empty tubs. Inspection and enquiry made.

A set of ten empty tubs was being lowered into a roadway dipping at 1 in 4 when the first four tubs became derailed, the third tub dislodging a prop which fell and struck deceased who was sitting down 20 feet away. He sustained injuries to which he succumbed a few hours later. Inspection and enquiry made.

On a direct haulage road, dipping at 1 in 6, a trolley left an empty tub standing but neglected to stop it properly. The tub ran wild and fatally struck deceased who was halting near the bottom of the plane. Inspection and enquiry made.

A set of eight empty tubs, which apparently had not been coupled to the haulage rope, was being lowered over the brow of a haulage road when the tubs ran wild and fatally injured deceased who was working on the haulage road. Inspection and enquiry made.

Deceased was sleeping near a tram line with her lamp extinguished. A coal-cutting machine was being brought along the tram line and she was run over. She sustained injuries to which she subsequently succumbed. Inspection and enquiry made.

While attempting to climb down the steep side of a quarry deceased missed his foot hold and fell through a distance of 25 feet. He sustained serious injuries which proved fatal shortly afterwards. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mine or of person killed.	Cause of accident and remarks.
HAULAGE—(33 details.)—<i>contd.</i>						
164	20th August, 5 P.M.	Samla Govindpur Mine, Pundrovsar P. O., Bengal.	Samla Gobindpur Collieries Co.	Kishore Das, (m.), 30, Underground Trimmer.	Coal	On a tram-line sloping at 1 in 1½, decoupled and a loaded tub in motion and then spragged its front wheel. This caused the tub to capsize and it caught decoupled against the side of a pillar, killing him instantly. Inspection and enquiry made.
165	15th September, 10-40 A.M.	Mosaboni Mine, Ghatala P. O., Bihar.	Indian Copper Corporation Limited.	John, (m.), 30, Pump attendant.	Copper	While an empty skip, weighing about 6 cwt., was about to be lowered in a sinking winze dipping at 30°, the rope broke inside the hook of the capping and the skip ran wild. Decoupled, who was going down the winze, was struck by the runaway skip and killed instantly. Inspection and enquiry made.
166	1st October, 5-30 A.M.	Dalia Mine, Jinnordeo P. O., C. P.	Anandnagar Coal-fields Ltd.	Nirpal Lohi, (m.), 30, Trimmer.	Coal	While a trammer was lying asleep across a haulage road with a gradient of about 1 in 60, he was run over and killed by a loaded tub which gravitated unattended down the road. Inspection and enquiry made.
167	7th October, 9-0 A.M.	Kustore Mine, Kusumda P. O., Bihar.	The Ramnagar Coal Association Ltd.	Purim Bhasnari, (m.), 22, Coal-cutter.	Coal	While a miner was walking at the side of a level haulage road the first mine-car of a set of 8 loaded cars attached to an electric locomotive became derailed. He was knocked down and received internal injuries to which he succumbed 7 days later. Inspection and enquiry made.
168	19th October, 9-30 P.M.	Jaghir Mine, Salem P. O., Madras.	The Magnesite Syndicate Ltd.	Porimal Annigundam, (m.), 35, Caddy.	Magnesite	Decoupled was knocked down by a trolley on a tram-line and sustained fatal injuries.
169	23rd October, 2-30 P.M.	Khowra Mine, Khowra P. O., Punjab.	Government of India.	Butha, (m.), 40, Trimmer.	Rocksalt	Decoupled was walking between two loaded tubs which were in motion. He was overcaulped by the rear tub and was injured seriously. He succumbed to his injuries six days later. Inspection and enquiry made.

10th November, 6-15 P M	South Tarsa Mine, Jharia P. O. Bihar	Sitan Dosed, (m), 20, Hedemra	Coal
21st November, 11 35 P M	Sitalpur Mine, Sitalpur P. O., Bengal	Kalo Manjhi, (m), 32, Coal-cutter	Coal
22nd November, 5-50 P M	Bararoo Mine, Jalgaon P. O., Bihar	Parbil Mahato, (m), 30, Coal-cutter	Coal
6th December, 11 15 A M.	Banbanua Mine, Chattarpur P. O., Bengal	Dubur Pashia, (m), 37, Loader	Coal
21st December, 12 Noon.	New Sudamdih Mine, Patna P. O., Bihar	Hari Ram Mahato, (m), 30, Jym-tam separator	Coal
20th February, 5 A M	Topost Mine Torcoel P. O., Bengal	Bhabin Bourin, U b. 45, Loader	Coal
1st January, 5-50 P M.	Bolero Mine, Bolero P. O., Bihar.	E I R. and B N L. Punco Tanti, (m), 45, Coal-cutter	Coal

SUNDRIES UNDERGROUND—(21 deaths)

UNDERGROUND MACHINERY—(1 death)

Banera Coal Co.,
Ld

Topost Mine
Torcoel P. O.,
Bengal

Decased was sleeping near a tram line with his lamp extinguished. A coal-belt in which he was being brought along the tram line and he was run over. The sustained injuries to which she subsequently succumbed. Inspection and enquiry made.

While a set of ten empty tubs was being hauled up a road by engine 4, the rope broke and the tubs ran down. The engine was struck and fatally injured by the runaway tubs. Inspection and enquiry made.

While a set of ten empty tubs was being lowered down a gradient of 1 in 15, the leading four tubs became uncontrolled and ran wild. They ran into a working level and killed and decased who was waiting there for empty tubs. Inspection and enquiry made.

A set of ten empty tubs was being lowered into a roadway, dipping at 1 in 4 when the first four tubs became derailed, the third tub jamming a prop which fell and struck the engine, who was waiting down 10 feet away. He sustained injuries to which he succumbed a few hours later. Inspection and enquiry made.

On a direct haulage road, dipping at 1 in 4, a tinner left an empty tub standing and neglected to spring it properly. The tub ran wild and fatally struck decased who was halting near the bottom of the plane. Inspection and enquiry made.

A set of eight empty tubs, which apparently had not been coupled to the haulage rope, was being lowered over the bow of a haulage road when the tubs ran wild and fatally injured decased who was working on the haulage road. Inspection and enquiry made.

While attempting to climb down the steep side of a quarry decased mislaid his foot-hold and fell through a distance of 25 feet. He sustained serious injuries which proved fatal shortly afterwards. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks.
SUNDRIES UNDERGROUND—(21 deaths) — <i>contd.</i>						
177	7th January, about 6-45 P.M.	Kusore Mine, Kusanda P. O., Bihar.	Raneengunge Coal Association, Id.	Bann Lal Bhakta, (m.), 40. (2) Foudi Kahar, (m.), 35. <i>Bunker-Trolleyman.</i>	Coal	Five men were engaged in various duties in the vicinity of an underground loading bunker, when about 10 tons of coal which had jammed in the chute suddenly fell into the bunker. One end wall of the bunker collapsed and fell on the tram-line below killing two of the men instantly and seriously injuring the other three. Inspection and enquiry made.
178	14th January, 5-30 A.M.	Kusore (Alkua South Section) Mine, Kusanda P. O., Bihar.	The Raneengunge Coal Association Id.	Kharia Dasadin, (f.), 20. <i>Coal-carrier.</i>	Coal	In a depillaring area deceased was struck and killed instantly by a prop, 1½ feet long, which was dislodged by a large piece of coal that fell from the side of a pillar under extraction. Inspection and enquiry made.
179	22nd January, 3-15 P.M.	Bararee (Jalgora Section) Mine, Jalgora P. O., Bihar.	The East Indian Coal Co., Id.	Dijjan Meah, (m.), 17. <i>Louder.</i>	Coal	While dressing was proceeding after blasting in the side of a pillar under extraction, a mass of coal, weighing about 3 tons, fell and dislodged two props which on falling displaced 55 feet from the pillar was struck by the third prop and killed instantly. Inspection and enquiry made.
180	5th February, 6 A.M.	Jamadaha Mine, Jalgora P. O., Bihar.	The Tata Iron and Steel Co., Id.	Sautak Bilaspuri, (m.), 40. <i>Coal-cutter.</i>	Coal	While the side of a pillar in a depillaring area was being dressed, a mass of coal, weighing about 7 cwt., rolled against a prop and dislodged it. Deceased, who was standing not far from the prop, was struck by it and sustained injuries which proved fatal 10½ hours later. Inspection and enquiry made.
181	27th February, 9-30 P.M.	Bararee Mine, Jalgora P. O., Bihar.	East Indian Coal Co., Id.	1. Dhann Singh, (m.), 35. 2. Ranjan Hazam, (m.), 32. <i>Labourers.</i>	Coal	In a depillaring district of a seam 26 feet thick, props were being withdrawn, when without warning an area of roof measuring 280 feet x 200 feet collapsed causing an air blast. The deceased who had been engaged in withdrawing timber were proceeding to a "retreat station", when they were killed instantly by the force of the blast. Inspection and enquiry made.

182	11th March, 7-30 a m	Morabon Mine, Ghatelia P O, Bihar	Indian Copper Corporation, Ltd	Hirekrishto Nath, (m) 33, Cooler	Copper	While deceased was assisting to move a plank in a slope a large piece of ore weighing about 30 lbs rolled down the slope and struck him on the head. He sustained injuries which proved fatal a few hours later. Inspection and enquiry made
183	3rd April, 7-20 p m	Danaur Mine, Jharia P O, Bihar	Standard Coal Co., Ltd	Motabab Ch Chatterji, (m) 32 Cooler	Coal	While deceased was dressing down roof coal with a crowbar from a ladder he overbalanced and fell a distance of 20 feet. He sustained serious injuries to his head to which he succumbed almost immediately. Inspection and enquiry made
184	2nd May 10 a m	Jharia Khas Mine, Jharia P O, Bihar	The Standard Coal Co., Ltd	Dukhan Kumar, (m) 20, Loader	Coal	Previous to putting up more supports a timberman and his two assistants were testing the roof of a gallery 26' high, in a depilating area when a mass of stone, 1' 3" x 1' x 1' fell from the roof and dislodged a prop. Two loaders who had entered the gallery without the knowledge of the timbermen were struck by one end of the prop. One of the loaders received fatal injuries and the other was seriously injured. Inspection and enquiry made.
185	8th May, 10-45 p m	Lutchipur Mine, Lutchipur P O, Bihar	Lutchipur Coal Co	Mahmud Kora, (m) 45, Stone-cutter	Coal	While assisting to clear a road through a fall in a gallery underground a miner was struck by a piece of stone 4' x 3' x 1' 6", which rolled from the top of the fall, and fatally injured him. Inspection and enquiry made
		11th May, Lutchipur P O, Bihar	Lutchipur Coal Co. Ltd.	Moun Turi, (m) 48, Cooler	Coal	While deceased was hand shunting an empty tub on an underground tramming level, a thin piece of coal fell from the roof and struck the tub. In avoiding the falling coal deceased tripped over the tram line and struck his head against a pillar, sustaining fatal injuries. Inspection and enquiry made
					Coal	Under the supervision of a miner deceased was dressing down roof stone loosened by blasting when a piece 7' x 3' x 2' thick broke away at a height of 14 feet. In attempting to get clear he fell heavily on the blocks of coal lying on the floor and sustained internal injuries to which he succumbed two hours later. Inspection and enquiry made.
					Mining engineer	Inspector 1 with a pry, steel round file and wire was assisting to force down some 1 one foot about 40 feet from the bottom of a quarry when a piece of stone fell and cut the rope. He fell to the bottom of quarry and sustained fatal injuries

APPENDIX II—Continued.

Fatal Accidents during the Year 1957—Contd.

Serial Number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Category of accident and nature of injury sustained.	Nature of work being done.	Description of accident.
SUNDRIES UNDERGROUND—(Continued)—Contd.						
189	30th July, 4 P.M.	Kearo-Chaitathi Mine, Kottayam P. O., Bihār.	Harshar Coal Co., Bangalore, Ltd.	Coal	When working in the mine, the miner was struck by a falling rock and died.	While working in the mine, the miner was struck by a falling rock and died.
190	13th August, 2.30 P.M.	Sodpur Mine, Saharapur P. O., Bihār.	Bihar Coal Co., Ltd.	Coal	When working in the mine, the miner was struck by a falling rock and died.	While working in the mine, the miner was struck by a falling rock and died.
191	20th August, 4 P.M.	Pandebhara Mine, Jharia P. O., Bihār.	Pandebhara Cellulose Co.	Coal	When working in the mine, the miner was struck by a falling rock and died.	While working in the mine, the miner was struck by a falling rock and died.
192	12th September, 2 P.M.	Kajura Mine, Kojura P. O., Jharkhand.	Raj Dutt & Co.	Coal	When working in the mine, the miner was struck by a falling rock and died.	While working in the mine, the miner was struck by a falling rock and died.
193	22nd September, 1.30 A.M.	Barnore Mine, Jharkhand P. O., Bihār.	The East Indian Coal Co., Ltd.	Coal	When working in the mine, the miner was struck by a falling rock and died.	While working in the mine, the miner was struck by a falling rock and died.
194	8th November, 6.36 P.M.	South Kajura Mine, Jharia P. O., Bihār.	Hazlet Kajura Colliery Co.	Coal	When working in the mine, the miner was struck by a falling rock and died.	While working in the mine, the miner was struck by a falling rock and died.

BY SURFACE MACHINERY—(1 death).

Narsibhai Muljibhai	Dhandoo Dargadoo, (m) 35 Labourer	Stone quarry
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The fly wheel of a stone crusher broke while in motion and a piece of the wheel struck deceased, inflicting fatal injuries

155 24th December,
5 45 p.m.
Owerad Mine
Udareda P. O.
Bombay

ON SURFACE RAILWAYS AND TRANWAYS BELONGING TO THE MINE—(8 deaths)

Central Kirkland Coal Co., Ltd	Johann Numa, (m) 58, Leading Coalie	Coal
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While wagons were being hand-shunted on a railway siding, deceased attempted to pass between two wagons. He was crushed between the buffers and was fatally injured. Inspection and enquiry made.

The Shirrojour Syndicate Ltd	Mukawa Timawa, (f) 27, Labourer	Manganese
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While walking along a transline, deceased was overtaken and run over by a tub of ore being pushed by two miners. He sustained serious injuries and died seven days later. It was subsequently disclosed that she was deaf and dumb. Inspection and enquiry made.

Coal Coal Co	Milani Maharani, (f), 17, Jeweller	Coal
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While attempting to ride on a moving train of tubs, deceased slipped and her legs were run over by the wheels of a tub. She succumbed to her injuries ten days later. Inspection and enquiry made.

New Mulamathi Coalmine Ltd	Troil Maru, (m) 32, Tramway	Coal
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Deceased was assisting to re-rail an empty tub when his left ring finger was pinched between the buffer and rail. He contracted tetanus and died seven days later. Inspection and enquiry made.

Mankabhusal, (m) 102, Labourer	Coal
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While walking alongside a moving train of empty wagons, deceased was knocked down by it and sustained injuries which proved fatal a few hours later. Inspection and enquiry made.

Mankabhusal, (f) 49, Tramway	Manganese
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Deceased was run over by a loaded tub on a surface tram-line. She sustained various injuries and died from multiple fractures three days later.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Cause of accident and remarks.
ON SURFACE RAILWAYS AND TRAMWAYS BELONGING TO THE MINE—(8 deaths)—<i>contd.</i>						
202	7th November, 7 A.M.	North Damuda Mine, Nudharkee F. O., Bihar.	Shanker Lal Agrar- walla.	Lotan Mahato, (m.), 62, <i>Carter.</i>	Coal	Deceased was standing on the front of a tipping tub filled with coal which was being hauled along a surface tram-line by a buffalo and a bullock. He fell off the tub in between the rails and was injured. He died from shock 4 hours later. Inspection and enquiry made.
203	11th November, 3 P.M.	Makarwal Mine, Mari Indus F. O., Punjab.	Messrs. C. B. Pat- man and R. S. I. Isahardas Kapoor.	Adhiram, (m.), 25, <i>Labourer.</i>	Coal	A clamp of an aerial ropeway bucket got loose and the bucket ran wild on the ropeway, dipping 1 in 5. Deceased who happened to be in the bucket was thrown against the bottom terminal of the ropeway and was killed on the spot. Inspection and enquiry made.
BY ELECTRICITY—(2 deaths).						
204	31st July, 11.50 A.M.	Jamudoba Mine, Jalagora F. O., Bihar.	Tata Iron & Steel Co., Ltd.	Dhaneswar Rowt, (m.), 22, <i>Labourer.</i>	Coal	Deceased touched a portable electric hand-lamp and received a severe electric shock from the metallic guard. He walked a few steps and somehow got entangled with the cable serving the lamp. He collapsed and expired after he was realised from the cable. Inspection and inquiry made.
205	31st October, 12 Noon.	Sendra Mine, Bans- jora F. O., Bihar.	Sendra Coal Co., Ltd.	Manna Zolla, (m.), 35, <i>Labourer.</i>	Coal	A fitter with deceased was re-making a joint on the top of a post which carried a stream range. On completion of a work his right arm came in contact with a 223 volt A. C. lighting line which was attached to the post. He received a continuous electric shocks for sometime and then fell 15 ft. to the ground. He was unconscious and expired soon afterwards. The accident would not have happened had the fitter taken the precaution to see that the lighting line was dead before work was commenced. Inspection and enquiry made.

MISCELLANEOUS ON SURFACE-- (3 deaths)

206	1st December, 11-43 A. M.	Dokaro Mine, Dokaro P. O., Bihar.	East Indian and Bengal Nagpur Railways	Dugan Marari, (J), Coal loader	Coal	Deceased attempted to enter a quarry by an unauthorised path and while climbing down a slope of 1 in 1.4 she fell to the bottom and sustained fatal injuries. Inspection and enquiry made.
207	14th December, 8 A. M.	Kongun and Jurin Mines, Kongun P. O., Assam	The Navika Coal Co., Ltd	Karon Singh, (m), SS, Labourer.	Coal	Deceased was accidentally struck by a prop which fell a distance of 39 feet from a platform. He was fatally injured. Inspection and enquiry made.
208	14th December, 4 31 A. M.	Kanulla Mine, Mine, Bihar, P. O., Bihar	G. W. Powell and A. Shewby.	Ken baren Kol, (m) SS, Stone-breaker	Stone	While descending was leaving down stones from the slope of a hill he overbalanced and fell 55 feet down to the foot of the hill. He died almost immediately. Inspection and enquiry made.

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number.	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Reason for exclusion.	Cause of accident and remarks.
FATAL ACCIDENTS NOT INCLUDED IN THE STATISTICS—(23 deaths.)							
1	3rd January, 12 Noon.	Toetlmari Mine, Sijua P. O., Bihar.	Burrakur Coal Co., Ltd.	Gobul Rajwar (m.), 60, Not employed.	Coal	Not a mining accident.	While getting coals deceased fell into an abandoned quarry from a height of about 25 feet. Death was instantaneous. The quarry was fenced properly. Inspection and enquiry made.
2	31st January, 9 A. M.	Bhehwa Pahari Mine, Gaurwan P. O., Bihar.	Ganga Sahu	Prayag Sandi, (m.), 20, Not employed.	Coal	Not employed.	Deceased was found buried in an abandoned prospecting pit, about 8 feet in depth. Inspection and enquiry made.
3	7th February, 9-30 P. M.	Dhanesar Jharra Mine, P. O., Bihar.	Dhanesar Coal Co., Ltd.	Jagan Mundi, (m.), 42, Not employed.	Coal	Not employed.	While deceased was crossing a surface tramline in the darkness he fell over a hange rope which was in motion and sustained injuries which proved fatal. Inspection and enquiry made.
4	11th February, about 6-7 A. M.	Khetoro Mine, Kusunda P. O., Bihar.	Ranegunge Coal Association Ltd.	Jugnaray N Tawar, (m.), 22, about 22, Labeled From.	Coal	Not a mining accident.	Deceased, who was subject to epileptic fits, was found drowned in an open drain on the surface which contained water to a depth of about 2 feet. Inspection and enquiry made.
5	23rd February, 6-30 P. M.	Chambal and Channwala Stone Quarries, Saranajamri P. O., Punjab.	P. W. D. (Punjab), Irrigation Branch.	Ram Saran, (m.), 80, Saran.	Stone	Not a mining accident.	While returning home after the end of his work in a quarry, deceased fell down from a trolley and sustained injuries which proved fatal a short time after the accident. Inspection and enquiry made.
6	9th or 10th March.	Victoria Mine, Kuthi Bengal.	New Boerboom Coal Co., Ltd.	Ramu Bibi, (f.), 30, Not employed.	Coal	Not employed.	Deceased was found dead at the bottom of a shaft, 319 feet deep. As the shaft was securely fenced it was assumed that she had either deliberately climbed through the fence and jumped down the shaft or she had been thrown down. Inspection and enquiry made.

7	22nd March, 11 A M	Petlabary, Chirakunda Jhark	Mitoo, P O,	Shew Poyan Singh	Chand Gope (m) 45 Not employed	Coal	Not em- ployed	While deceased was undermining coal in a disused quarry a mass of side 7 x 4 x 2) thick, fell on him from a height of 5 feet killing him instantly Inspection and enquiry made
8	10th April 10 A M	Ujjer Khadi, Mine Jhark P O, Jhark	Ujjer Khandra Suth Jhark Coal Co	Jays Malato (m) 65 Not employed	Coal	Not em- ployed	Deceased went to take a bath in a water-logged quarry and was drowned Inspection and inquiry made	
9	10th May	Lakurda Mine, Bates, m, P O, Bihar	Lakurda Coal Co, Id	Lachmi Nath (m) 70, Not employed	Coal	Not em- ployed	Deceased was drowned in an abandoned quarry, containing about 8 ft of water Ins, action and enquiry made	
10	11th May, P A M	Vijaya Mine, Kulki Jhark	New Heerthum Coal Co, Id	Hehar Singh, (m) 40, 2nd born	Coal	Not employed	While a boiler was being "blown down" a short piece of a ret fire wall built over the inspection trap of the "blow down" pipe collapsed, and a large volume of steam was emitted from the trap door Ten persons who were standing near were scalded and one seriously succumbed to his burns Inspection and enquiry made	
11	11th June P A M	Bhas Choudhary Mine, Khatwa, m, P O, Jhark	Bhas Choudhary Coal Co	Abdul Gani, (m) 25, Not employed	Coal	Not em- ployed	Deceased jumped into an abandoned quarry containing about 6 ft of water and was drowned Inspection and enquiry made	
12	12th July, P A M	Kanungur Mine, Khatwa, m, P O, Jhark	Sania Collieries Ltd	Folio Manjun (J), 11 Not employed	Coal	Not employed	In attempting to pass between two wagons during hand-shunting operations on a surface railway deceased was crushed between the buffers and killed instantly Inspection and enquiry made	
13	15th July, P A M	Bongoli Mine, Jhark P O,	State Railways Coal Department	Kachunath (m) 65 Jhark	Coal	Not employed	Deceased was killed by lightning Inspection and inquiry made	
14	16th July, P A M	Baras Mine, Jhark P O,	East Indian Coal Co, Id	Manjhi Manj (J), 25, Not employed	Coal	Not employed	Deceased was standing on the line in a colliery when a wagon was being marshalled by a railway engine She was knocked down and killed instantly Inspection and enquiry made	
15	17th July, P A M	Khatwa Mine, Jhark P O,	Maharaja S C Nandy	Sahab Singh (m) 25 Jhark	Coal	Not employed	Deceased was found drowned in an abandoned trial-shaft, containing 60 feet of water The shaft was properly fenced Inspection and inquiry made	
16	21st August at 8 to P M	Mahabary Mine, Jhark P O, Jhark	Chandamulla, Jhark Aurar	Vijaya G (m) Not employed	Coal	Not em- ployed	Deceased was run over by a locomotive on a surface train. She sustained serious injuries and died the following day	

APPENDIX II—*contd.*

Fatal Accidents during the year 1937—*contd.*

Serial number	Date and hour of accident.	Name and situation of mine.	Name of owner.	Name, sex, age and occupation of persons killed.	Name of mineral worked.	Reason for exclusion.	Cause of accident and remarks.
FATAL ACCIDENTS NOT INCLUDED IN THE STATISTICS—(24 deaths)—<i>contd.</i>							
17	6th October, 1-30 A.M.	Jamohari Selected Mines, Raniganj F. O., Bengal.	Jogmohan Kishore Lal.	Khurta Maunhi, (m.), 42, <i>Filter.</i>	Coal	Not a mining accident.	Deceased died of heart failure within 15 minutes of his going underground. Inspection and enquiry made.
18	27th October, 6 A.M.	Barruli Limestone Mine, Banjari P. O., Bihar.	Ram Prasad Mehra.	Ghuria Deshaidhi, (f.), 25, <i>Not employed.</i>	Limestone	Not employed.	Deceased was digging earth from an undercut side of an abandoned quarry when the side collapsed. She was struck by a mass of stone 1' x 1' 9" and died instantly. Inspection and enquiry made.
19	3rd November, 4-30 P.M.	Machhapur Mine, Odal P. O., Bengal.	Chandanmull Indrakumar.	Kuloo, (m.), 22, <i>Coal-cutter.</i>	Coal	Not a mining accident.	During a fit of insanity deceased threw himself down a shaft 139 ft. deep and was killed instantly. Inspection and enquiry made.
20	13th November, 12-30 P.M.	Lakurka Mine, Katsargach P. O., Bihar.	Lakurka Coal Co., Ltd.	Dulhni Kole, (f.), 25, <i>Not employed.</i>	Coal	Not employed.	Deceased went to a boiler feed tank containing about 10 feet of water, for washing purposes and was drowned. Inspection and enquiry made.
21	25th November, 4-0 A.M.	Kurthubaree Mine, Giridih P. O., Bihar.	The Government of India.	Tektou Rai, (m.), 12, <i>Not employed.</i>	Coal	Not employed.	While a boy was warming himself near a heap of boiler ashes his clothing caught fire. He succumbed to his burns 16 days later. Inspection and enquiry made.
22	29th November, 11-45 P.M.	Bhulanbarraree Mine, Pachardhi P. O., Bihar.	Bhulanbarraree Coal Co., Ltd.	Sitn Bouri, (m.), 35, <i>Coal-cutter.</i>	Coal	Not a mining accident.	Deceased was sitting near a fire in the compound of his dwelling, when his clothing caught fire. He sustains serious burns to which he succumbed the following day. Inspection and enquiry made.

23	20th Decem- ber 6-30 A M	Pretoria Charanpur Bangal	Mine, P. O.	Seabrook Coal Co., Ltd	Sent Dourin, J. J., At- tendant of an injured worker	Coal	Not a mining accident	While deceased was sitting near a fire on the verandah of her dwelling, her clothing caught fire, causing severe burns to her body. She died of shock 16 hours later. Inspection and enquiry made.
24	20th Decem- ber, 12 15 A M	Kirkland Kasenda Bihar	Mine P. O.,	Kiripash sker D Worah	Dublin Kolo, (J), Loader	Coal	Not a mining accident	During a cold night deceased was sleeping near a fire in her dwelling, when her clothing caught fire. She was severely burnt and died about 15 hours later. Inspection and enquiry made.

Table

Statement of fatal and serious accidents in and about Mines

Province.	District and Mineral field.	Number of separate fatal accidents.		Number of deaths.						Total.	CO
		Under-ground.	Males.	Females.	Open workings.	Males.	Females.	Surface.	Females.		
Assam	Khasi and Jaintia Hills Lakhimpur—M a k u m coalfield. Naga Hills—Nazira coalfield.	3	4	...	...	...	...	...	...	4	1
		51	54	4	...	...	...	...	...	58	
		83	84	3	2	1	5	...	...	95	
		7	1	...	3	2	...	1	...	7	
Bihar	Jharis coalfield. Bokaro " Karanpura " Giridih	6	7	...	...	...	...	...	...	8	
		1	...	...	1	...	...	...	...	1	
		7	1	...	3	2	...	...	...	7	
		83	84	3	2	1	5	...	...	95	
Bengal (and part of Bihar).	Raniganj coalfield	51	54	4	...	...	...	...	...	58	
		1	...	...	...	...	...	...	...	1	
		3	4	...	...	...	...	...	...	4	
		51	54	4	...	...	...	...	...	58	
Central Provinces	Betul Chanda Chhindwara—P e n c h Valley coalfield.	1	3	...	...	...	...	...	...	3	
		1	1	...	...	...	...	...	...	1	
		12	11	3	...	...	...	...	...	15	
		1	1	...	...	...	...	...	...	1	
Orissa	Sambalpur—H i n g i r- Rampur coalfield.	1	1	...	...	...	...	...	...	1	
		6	5	...	...	...	...	...	...	6	
		172	171	10	6	3	8	2	...	200	
		179	171	10	6	3	8	2	...	200	
Punjab	Salt Range coalfield	6	5	...	...	...	...	...	...	6	
		6	5	...	...	...	...	...	...	6	
		172	171	10	6	3	8	2	...	200	
		179	171	10	6	3	8	2	...	200	

FATAL

Table

Statement of fatal and serious accidents in and about Mines

Province.	District and Mineral field.	Number of separate fatal accidents						Number of deaths.					
		Under-ground.		Open workings.		Surface.		Under-ground.		Open workings.		Surface.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Bihar	Singbhum	12	...	...	...	12	...	...	...	...	...	...	...
		3	1	...	...	1	...	...	...	...	...	...	...
	
	
	
	
	
	
	
	
Central Provinces	Balaghat	3	1	...	...	1	...	...	...	...	...	...	...
	
	
	
	
	
	
	
	
	
Bombay	Panch Mahals	12	1	1	2
		3	1
	
	
	
	
	
	
	
	
Baluchistan	Upper Zho	1	1	1
	
	
	
	
	
	
	
	
	
Bihar	Singbhum	5	1	2	2	6
	
	
	
	
	
	
	
	
	

STRIOTS ACCIDENTS

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Statement of fatal and serious accidents in and about Mines

Province.	District and Mineral field.	Number of separate fatal accidents.		Number of deaths.										
		Under-ground.	Open workings.	Surface.		Males.	Females.	Total.						
				Males.	Females.									
Bihar	Singbhum	7	8	...	...	...	...	...	8
		MI	Gaya	2	...	1	1	...	2					
				Bazariabagh	3	2	...	4	...	6				
					Manbhum			
	Monghyr	1	1	...		...	...	...	1
		Madras	Nellore	2	1	...	1	2				
	Rajputana			Ajmer-Marwara	1	1	1			
					Total (Mica)	9	4	...	7	1	...	19		
						Punjab	Jhelum	1	1	SA
								Mianwali
Total (Salt)									4	4

FATAL

regulated by the Indian Mines Act, during the year 1937—cont.

PERIODS ACCIDENTS

ACCIDENTS	Death rate per 1,000 persons employed.		No. of persons injured referred to hospital.	Persons injured rate per 1,000 persons employed.	
	Underground	On workings surface	Underground	On workings surface	Total
Periods	1937	1938	1937	1938	1937
Periods	1939	1940	1939	1940	1939
Periods	1941	1942	1941	1942	1941
Periods	1943	1944	1943	1944	1943
Periods	1945	1946	1945	1946	1945
Periods	1947	1948	1947	1948	1947
Periods	1949	1950	1949	1950	1949
Periods	1951	1952	1951	1952	1951
Periods	1953	1954	1953	1954	1953
Periods	1955	1956	1955	1956	1955
Periods	1957	1958	1957	1958	1957
Periods	1959	1960	1959	1960	1959
Periods	1961	1962	1961	1962	1961
Periods	1963	1964	1963	1964	1963
Periods	1965	1966	1965	1966	1965
Periods	1967	1968	1967	1968	1967
Periods	1969	1970	1969	1970	1969
Periods	1971	1972	1971	1972	1971
Periods	1973	1974	1973	1974	1973
Periods	1975	1976	1975	1976	1975
Periods	1977	1978	1977	1978	1977
Periods	1979	1980	1979	1980	1979
Periods	1981	1982	1981	1982	1981
Periods	1983	1984	1983	1984	1983
Periods	1985	1986	1985	1986	1985
Periods	1987	1988	1987	1988	1987
Periods	1989	1990	1989	1990	1989
Periods	1991	1992	1991	1992	1991
Periods	1993	1994	1993	1994	1993
Periods	1995	1996	1995	1996	1995
Periods	1997	1998	1997	1998	1997
Periods	1999	2000	1999	2000	1999
Periods	2001	2002	2001	2002	2001
Periods	2003	2004	2003	2004	2003
Periods	2005	2006	2005	2006	2005
Periods	2007	2008	2007	2008	2007
Periods	2009	2010	2009	2010	2009
Periods	2011	2012	2011	2012	2011
Periods	2013	2014	2013	2014	2013
Periods	2015	2016	2015	2016	2015
Periods	2017	2018	2017	2018	2017
Periods	2019	2020	2019	2020	2019
Periods	2021	2022	2021	2022	2021
Periods	2023	2024	2023	2024	2023
Periods	2025	2026	2025	2026	2025
Periods	2027	2028	2027	2028	2027
Periods	2029	2030	2029	2030	2029
Periods	2031	2032	2031	2032	2031
Periods	2033	2034	2033	2034	2033
Periods	2035	2036	2035	2036	2035
Periods	2037	2038	2037	2038	2037
Periods	2039	2040	2039	2040	2039
Periods	2041	2042	2041	2042	2041
Periods	2043	2044	2043	2044	2043
Periods	2045	2046	2045	2046	2045
Periods	2047	2048	2047	2048	2047
Periods	2049	2050	2049	2050	2049
Periods	2051	2052	2051	2052	2051
Periods	2053	2054	2053	2054	2053
Periods	2055	2056	2055	2056	2055
Periods	2057	2058	2057	2058	2057
Periods	2059	2060	2059	2060	2059
Periods	2061	2062	2061	2062	2061
Periods	2063	2064	2063	2064	2063
Periods	2065	2066	2065	2066	2065
Periods	2067	2068	2067	2068	2067
Periods	2069	2070	2069	2070	2069
Periods	2071	2072	2071	2072	2071
Periods	2073	2074	2073	2074	2073
Periods	2075	2076	2075	2076	2075
Periods	2077	2078	2077	2078	2077
Periods	2079	2080	2079	2080	2079
Periods	2081	2082	2081	2082	2081
Periods	2083	2084	2083	2084	2083
Periods	2085	2086	2085	2086	2085
Periods	2087	2088	2087	2088	2087
Periods	2089	2090	2089	2090	2089
Periods	2091	2092	2091	2092	2091
Periods	2093	2094	2093	2094	2093
Periods	2095	2096	2095	2096	2095
Periods	2097	2098	2097	2098	2097
Periods	2099	2100	2099	2100	2099
Periods	2101	2102	2101	2102	2101
Periods	2103	2104	2103	2104	2103
Periods	2105	2106	2105	2106	2105
Periods	2107	2108	2107	2108	2107
Periods	2109	2110	2109	2110	2109
Periods	2111	2112	2111	2112	2111
Periods	2113	2114	2113	2114	2113
Periods	2115	2116	2115	2116	2115
Periods	2117	2118	2117	2118	2117
Periods	2119	2120	2119	2120	2119
Periods	2121	2122	2121	2122	2121
Periods	2123	2124	2123	2124	2123
Periods	2125	2126	2125	2126	2125
Periods	2127	2128	2127	2128	2127
Periods	2129	2130	2129	2130	2129
Periods	2131	2132	2131	2132	2131
Periods	2133	2134	2133	2134	2133
Periods	2135	2136	2135	2136	2135
Periods	2137	2138	2137	2138	2137
Periods	2139	2140	2139	2140	2139
Periods	2141	2142	2141	2142	2141
Periods	2143	2144	2143	2144	2143
Periods	2145	2146	2145	2146	2145
Periods	2147	2148	2147	2148	2147
Periods	2149	2150	2149	2150	2149
Periods	2151	2152	2151	2152	2151
Periods	2153	2154	2153	2154	2153
Periods	2155	2156	2155	2156	2155
Periods	2157	2158	2157	2158	2157
Periods	2159	2160	2159	2160	2159
Periods	2161	2162	2161	2162	2161
Periods	2163	2164	2163	2164	2163
Periods	2165	2166	2165	2166	2165
Periods	2167	2168	2167	2168	2167
Periods	2169	2170	2169	2170	2169
Periods	2171	2172	2171	2172	2171
Periods	2173	2174	2173	2174	2173
Periods	2175	2176	2175	2176	2175
Periods	2177	2178	2177	2178	2177
Periods	2179	2180	2179	2180	2179
Periods	2181	2182	2181	2182	2181
Periods	2183	2184	2183	2184	2183
Periods	2185	2186	2185	2186	2185
Periods	2187	2188	2187	2188	2187
Periods	2189	2190	2189	2190	2189
Periods	2191	2192	2191	2192	2191
Periods	2193	2194	2193	2194	2193
Periods	2195	2196	2195	2196	2195
Periods	2197	2198	2197	2198	2197
Periods	2199	2200	2199	2200	2199
Periods	2201	2202	2201	2202	2201
Periods	2203	2204	2203	2204	2203
Periods	2205	2206	2205	2206	2205
Periods	2207	2208	2207	2208	2207
Periods	2209	2210	2209	2210	2209
Periods	2211	2212	2211	2212	2211
Periods	2213	2214	2213	2214	2213
Periods	2215	2216	2215	2216	2215
Periods	2217	2218	2217	2218	2217
Periods	2219	2220	2219	2220	2219
Periods	2221	2222	2221	2222	2221
Periods	2223	2224	2223	2224	2223
Periods	2225	2226	2225	2226	2225
Periods	2227	2228	2227	2228	2227
Periods	2229	2230	2229	2230	2229
Periods	2231	2232	2231	2232	2231
Periods	2233	2234	2233	2234	2233
Periods	2235	2236	2235	2236	2235
Periods	2237	2238	2237	2238	2237
Periods	2239	2240	2239	2240	2239
Periods	2241	2242	2241	2242	2241
Periods	2243	2244	2243	2244	2243
Periods	2245	2246	2245	2246	2245
Periods	2247	2248	2247	2248	2247
Periods	2249	2250	2249	2250	2249
Periods	2251	2252	2251	2252	2251
Periods	2253	2254	2253	2254	2253
Periods	2255	2256	2255	2256	2255
Periods	2257	2258	2257	2258	2257
Periods	2259	2260	2259	2260	2259
Periods	2261	2262	2261	2262	2261
Periods	2263	2264	2263	2264	2263
Periods	2265	2266	2265	2266	2265
Periods	2267	2268	2267	2268	2267
Periods	2269	2270	2269	2270	2269
Periods	2271	2272	2271	2272	2271
Periods	2273	2274	2273	2274	2273
Periods	2275	2276	2275	2276	2275
Periods	2277	2278	2277	2278	2277
Periods	2279	2280	2279	2280	2279
Periods	2281	2282	2281	2282	2281
Periods	2283	2284	2283	2284	2283
Periods	2285	2286	2285	2286	2285
Periods	2287	2288	2287	2288	2287
Periods	2289	2290	2289	2290	2289
Periods	2291	2292	2291	2292	2291
Periods	2293	2294	2293	2294	2293
Periods	2295	2296	2295	2296	2295
Periods	2297	2298	2297	2298	2297
Periods	2299	2300	2299	2300	2299
Periods	2301	2302	2301	2302	2301
Periods	2303	2304	2303	2304	2303
Periods	2305	2306	2305	2306	2305
Periods	2307	2308	2307	2308	2307
Periods	2309	2310	2309	2310	2309
Periods	2311	2312	2311	2312	2311
Periods	2313	2314	2313	2314	2313
Periods	2315	2316	2315	2316	2315
Periods	2317	2318	2317	2318	2317
Periods	2319	2320	2319	2320	2319
Periods	2321	2322	2321	2322	2321
Periods	2323	2324	2323	2324	2323
Periods	2325	2326	2325	2326	2325
Periods	2327	2328	2327	2328	2327
Periods	2329	2330	2329	2330	2329
Periods	2331	2332	2331	2332	2331
Periods	2333	2334	2333	2334	2333
Periods	2335	2336	2335	2336	2335
Periods	2337	2338	2337	2338	2337
Periods	2339	2340	2339	2340	2339
Periods	2341	2342	2341	2342	2341
Periods	2343	2344	2343	2344	2343
Periods	2345	2346	2345	2346	2345
Periods	2347	2348	2347	2348	2347
Periods	2349	2350	2349	2350	2349</

APPEN

Table

Statement of fatal and serious accidents in and about Mines

Province.	District and Mineral field.	Number of separate fatal accidents.						Number of deaths.	
		Under-ground.		Open workings.		Surface.			
		Males.	Females.	Males.	Females.	Males.	Females.		
		Total.							

FATAL

Bihar		Bombay		Madras		Central Provinces		Punjab	
Gaya	Santal Parganas	Bombay Surbaban	Surat	Chingleput	East Godavari	Jubbulpore	Attock	Jhelum	Total (Limestone)
1	1	1	1	1	1	1	1	1	3
...
...
1	1	...	...	1	1	7	1	...	9
...	...	...	...	...	...	2	...	...	2
1	...	...	1	...	...	...	...	...	...
...
1	1	...	1	...	...	9	1	...	11

LIME

STO

No. 2—contd.

regulated by the Indian Mines Act, during the year 1937—*continued*

ACCIDENTS

[illegible]

APPEN

Table

Statement of fatal and serious accidents in and about Mines

FATAL									
Province.	District and Mineral field.	Number of separate fatal accidents.		Number of deaths					
				Under-ground.		Open workings.		Surface.	
		Males.	Females.	Males.	Females.	Males.	Females.	Total.	
Madras	Salem	1	...	...	1	...	...	...	1
		
		
		
		
		
		
Bihar	Singhbhum	208	...	...	...	...	...	...	...
		189	...	...	...	...	...	...	...
		10	...	...	...	...	...	...	...
		29	...	...	...	...	...	...	...
		6	...	...	...	...	...	...	...
		10	...	...	...	...	...	...	...
		4	...	...	...	...	...	...	...
Grand Total (All mines)		208	...	...	...	...	...	...	248
CHINA		...	...	...	...	...	...	...	...

regulated by the Indian Mines Act, during the year 1937—*concl.*

[illegible]

Table

FATAL

regulated by the Indian Mines Act, during the year 1987—contd.

ACCIDENTS		SERIOUS ACCIDENTS			
Death rate per 1,000 persons employed	Underground	Open workings	Surface	Number of persons seriously injured	
				Underground	Surface
Number of separate serious accidents	Underground, Open workings and Surface	Males	Females	Males	Females
0.64	0.72	1	1	1	1
0.33	0.19	0.48	0.62	17	15
1.085	825	15	17	1	1
CLAY	CLAY	CLAY	CLAY	CLAY	CLAY

APPENDIX II—*contd.*

Table No. 3.

Statement of fatal accidents in Mines regulated by the Indian Mines Act, during the year 1937, classified according to cause of accident.

Mineral worked.	Number of separate accidents.	Number of persons killed.												Total for 1937	Total for preceding year.	Difference
		Coal	Iron Ore	Manganese Ore	Chromite Ore	Copper Ore	Mica	Salt	Stone	Limestone	Magnetite					
	172	1	1	3	1	7	9	1	4	3	1			208	214	-6
Number of separate accidents.																
Explosions and ignitions of fire-damp and coal dust.																
Falls of roof.	71			1	1	1	2							2	218	-211
Falls of sides.	19		1	1	1		8		1					78	67	+11
In shafts.	10					3								70	74	-4
Suffocation by gases.	2													2	7	+5
By explosions.			1											15	35	-38
By Irruptions of water.	9						2		1					..	12	+3
Haunage.	27					1		4			1		38	25	25	+8
Miscellaneous underground.	20			1									22	19	19	+3
Electricity.	2												2	3	3	-1
Surface.	2			2					2				12	22	22	-10
Total deaths.	200	1	2	5	1	8	12	4	4	11	1		248	477	477	-229
Underground.	177			1	1	4	12	4					162	317	317	-155
Open workings.	23												186	160	160	-24
Surface.	19												162	160	160	-2
Underground, Open workings and Surface.	17												186	160	160	-26

Statement of prosecutions under the Indian Mines Act, during the year 1937

[illegible]

APPENDIX III—contd.

Statement of Prosecutions under the Indian Mines Act, during the year 1937—contd.

Province	District	Number of prosecutions.	Number of persons prosecuted.	Number of persons convicted.	Number of Regulations, Bye laws and Rules, and Sections of the Act contravened.	Remarks
Bihar—contd.	Meerbhoom	1	3	3	Regulations prohibiting the employment of women underground in mines, embodied in Government of India, Department of Labour, Notification No. M. 104, dated the 1st February 1937, read with 1905, dated the 17th June 1937 and Notification 143 of the Indian Coal Mines Regulation 1905 read with Section 20(1) of the Indian Mines Act and Rule 94 of the orders made by the Bihar Government under Section 20 of the Indian Mines Act.	
	Do	1	1	2	Regulation 112 of the Indian Coal Mines Regulation 1905, read with the Indian Mines Act, 1905 and the Indian Coal Mines Regulation 1905, dated the 17th June 1937 and Notification 143 of the Indian Coal Mines Regulation 1905 read with Section 20(1) of the Indian Mines Act and Rule 94 of the orders made by the Bihar Government under Section 20 of the Indian Mines Act.	
	Do	1	2	3	Regulations prohibiting the employment of women underground in mines, embodied in Government of India, Department of Labour, Notification No. M. 104, dated the 1st February 1937, read with 1905, dated the 17th June 1937 and Notification 143 of the Indian Coal Mines Regulation 1905 read with Section 20(1) of the Indian Mines Act and Rule 94 of the orders made by the Bihar Government under Section 20 of the Indian Mines Act.	
	Do	1	1	2	Regulation 112 of the Indian Coal Mines Regulation 1905, read with the Indian Mines Act, 1905 and the Indian Coal Mines Regulation 1905, dated the 17th June 1937 and Notification 143 of the Indian Coal Mines Regulation 1905 read with Section 20(1) of the Indian Mines Act and Rule 94 of the orders made by the Bihar Government under Section 20 of the Indian Mines Act.	

APPENDIX III—*contd.*

Statement of Prosecutions under the Indian Mines Act, during the year 1937—*contd.*

Province.	District.	Manbhum— <i>contd.</i>	Number of prosecutions.	Number of persons prosecuted.	Number of persons convicted.	Number of Regulations, Bye-laws and Rules contravened.	Remarks.
Bihar— <i>contd.</i>		Do. . . .	1	4	4	Regulation 149 of the Indian Coal Mines Regulations, 1926, read with Rule 9A of the Bihar Government under the Rules made by the Government of the Indian Mines Act, 1923.	with Notification No. M 1055, dated the 17th June 1937, Section 28(4), read with Rule 9A of the rules made by the Bihar Government, Bye-Law 31 of the Bye-Laws for coal mines and Regulation 149 of the Indian Coal Mines Regulations, 1926, read with rule 9A of the rules made by the Bihar Government 28(4) of the Indian Mines Act, 1923.
		Do. . . .	1	2	2	Regulations 15(3), 67 and 137 of the Indian Coal Mines Regulations, 1926.	
		Do. . . .	1	2	2	Regulations 135(1), 69(2), 15(3) and 15(4) of the Indian Coal Mines Regulations, 1926, Section 28(1) of the Indian Mines Act, 1923, and Rules 8 and 9 of the Rules made by the Bihar Government under the Section 30 of the Indian Mines Act, 1923.	
		Do. . . .	1	4	4	Regulation 69(2) of the Indian Coal Mines Regulations, 1926.	Regulation 149 of the Indian Coal Mines Regulations, 1926, read with Rule 9A of the Bihar Government under the Rules made by the Government of the Indian Mines Act, 1923, and Regulation 4(b) of the Government of India, Department of Industries and Labour, Notification No. M 1055, dated the 7th March 1929.

APPENDIX III—*contd.*Statement of Prosecutions under the Indian Mines Act, during the year 1937—*contd.*

Province	District	Number of prosecutions	Number of persons prosecuted	Number of persons convicted	Number of Regulations, Bye laws and Sections of the Act contravened	REMARKS
	Maubarn.	1	3	3	Regulation 149 of the Indian Coal Mines Regulations 1926 read with section 28 of the Indian Mines Act 1923, and Rule 9 of the rules made by the Bihar Government under Section 30 of the Indian Mines Act, 1923 and regulation 3 embodied in Government of India, Mines and Labour, Notification No. M 105, dated the 7th March 1929	
	Do	1	2	2	Orders under Section 19 (2) of the Indian Mines Act, 1923.	
	Do	1	3	3	Regulations 24(3) 70(2) and 149 of the Indian Coal Mines Regulations 1926 read with Bye-Law 30 made under Section 32 of the Indian Mines Act 1923, and regulation 4(b) issued under Notification No. M 105, dated the 7th March 1929 issued by the Government of India, Department of Industries and Labour	
	Do	1	4	4	Regulations 12(3) and 67, read with Regulations 69 and 147 of the Indian Coal Mines Regulations, 1926, and Section 13(1) of the Indian Mines Act 1923	
	Do	1	3	3	Regulation 4(1) (b) of the Regulations for prohibiting the employment of women underground in mines embodied in the Government of India, Department of Industries and Labour, No. M 105.	

INDIA III—contd.

Both accused were acquitted.

Province.	District	Number of persons prosecu- tions.	Number of persons prose- cuted	Number of persons con- victed	Number of Regulations, By-laws and Rules contravened Act	Remarks.
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[illegible]

[illegible]

Date of
Establish
certificate

21st July 1933
20th July 1936

of competency

managers' certificates of
were granted during the

straight line across the District
lines in Bombay
lines in the Central Provinces
lines in Madras

lines in Assam
lines in Bengal

No 2 Circle

1 CLB

Proton

Statements of

State and Federal Government and the Indian Affairs Act, during the year 1937—contd.

[illegible]

APPENDIX IV.

Miscellaneous.

Statement No. 1.

LIST OF INSPECTION CIRCLE.

No 2 Circle	No 1 Circle
<p>1 All mines in Assam</p> <p>2 All mines in Bengal.</p> <p>a straight line across the District.</p> <p>3 All mines in Bombay</p> <p>4 All mines in the Central Province.</p> <p>5 All mines in Madras.</p>	<p>1. All mines in Baluchistan</p> <p>2 All mines in Bihar except mines in the District of the Santal Parganas and such mines in the District of Manbhum as lie east of a line drawn from mile 175 on the Grand Trunk Road and continued in a straight line across the District</p> <p>3 All mines in Orissa</p> <p>4 All mines in the North-West Frontier Province</p> <p>5 All mines in the Punjab</p> <p>6 All mines in Rajputana.</p> <p>7 All mines in the United Provinces</p>

Statement No. 2.

Names of persons to whom first and second class coal mine managers' competency and surveyors' certificates of competency were granted in the year 1937.

Certificates granted to holders of British certificates of competency.

(a) FIRST CLASS.

Name	Number of 1st and 2nd class certificates.	Date of issue
Moor, Alexander.	303	1-1-1937
Wainwright, George.	354	1-1-1937

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 2—*contd.*

Names of persons to whom first and second class coal mine managers' certificates of competency and surveyors' certificates of competency were granted during the year 1937—*contd.*

Certificates granted to holders of British certificates of competency—*contd.*

(a) FIRST CLASS—*contd.*

Name.	Number of Indian certificate.	Date of Indian certificate.	Number of British certificate.	Date of British certificate.
Margundkar, Satohidannand Keshav	385	27th January 1937	2398	2nd May 1935.
Tomax, James	386	Ditto	2844	8th February 1935-
Anderson, Donald	387	21st April 1937	2809	14th February 1936.
Wright, William John	388	16th November 1937	2926	25th January 1939.
Griffith, Kenneth	389	Ditto	2767	26th January 1934.
Wills, William Stanley	390	Ditto	2527	13th February 1931.
Taylor, Mathew	391	Ditto	2291	25th January 1929.
Engineer, Behram Hormasjee	392	Ditto	2974	4th February 1937.

INDIAN CERTIFICATES.

(a) FIRST CLASS.

Name.	No. of certificate.	Date of certificate.	REMARKS.
Prasad, Dharmamath	255	21st April 1937.	
McCue, Neil Bertram	256	Ditto.	
Roy, Pratul Kumar	257	Ditto.	
Yasin, Mohammad	258	Ditto.	
Datta, Anilendra Nath	259	Ditto.	
Gupta, Pramod Chandra	260	Ditto.	
Mitra, Durga Prasanna	261	Ditto.	

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No 2—*contd.*

Names of persons to whom first and second class coal mine managers' certificates of competence and surveyors' certificates of competency were granted during the year 1987—*cont 1*

INDIAN CERTIFICATES—*contd.*

(b) SECOND CLASS

Name	No of certificate	Date of certificate	REMARKS
Mukherjee Chandra Sekhar	00	21st April 1987	
Srinivasa Govindaswami	31	Ditto	
Krishna, Subbaswami Iyer Gopala	32	Ditto	
Chatterjee Hemendra Nath	33	Ditto	
Bogara Clarence Arnold Joseph	34	Ditto	
Bhatt Hemant Kumar Krishnaprasad	35	Ditto	
Ghosh B. Kash Chandra	36	Ditto	
Tayab Mohammed	37	Ditto	
Ghose Hari Charan	38	Ditto	
Ghose Hirun Kumar	39	Ditto	
Chowdhury Nagendra Mohan	40	Ditto	
Berman Kart o Chandra	41	Ditto	
Adhikary Bhupendra Nath	42	Ditto	
Ka ty Nilmoni	43	Ditto	
Verma, Achyuta Vaid	44	Ditto	
Roy B. Bhuti Bhuvan	45	Ditto	
Bisw Sanyal R. jayul Hasan	46	Ditto	
Paul Manmatha Nath	47	Ditto	
Dutt Sudhanshu Kumar	48	Ditto	
Chavak Har Pada	49	Ditto	
Gandhar Ladi Prasad	50	Ditto	
Banerjee, Ajit Kumar	51	Ditto	

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 2—*contd.*

Names of persons to whom first and second class coal mine managers' certificates of competency and surveyors' certificates of competency were granted during the year 1937—*contd.*

Certificates granted to holders of British certificates of competency—*contd.*

(a) FIRST CLASS—*contd.*

Name.	Number of Indian certificate.	Date of Indian certificate.	Number of British certificate.	Date of British certificate.
Nragundkar, Satehidannand Keshav	385	27th January 1937	2598	2nd May 1935.
Lomax, James	386	Ditto	2844	8th February 1935.
Anderson, Donald	387	21st April 1937	2899	14th February 1936.
Wright, William John	388	16th November 1937	2926	25th January 1929.
Grimth, Kenneth	359	Ditto	2767	26th January 1934.
Willis, William Stanley	390	Ditto	2827	13th February 1931.
Taylor, Mathew	391	Ditto	2931	25th January 1929.
Engineer, Behram Hormasjee	392	Ditto	2974	4th February 1937.

INDIAN CERTIFICATES.

(a) FIRST CLASS.

Name.	No. of certificate.	Date of certificate.	REMARKS.
Prasad, Dharamnath	255	21st April 1937.	
McCue, Neil Bertram	256	Ditto.	
Roy, Pratul Kumar	257	Ditto.	
Kasim, Mohammad	258	Ditto.	
Datta, Anilendra Nath	259	Ditto.	
Gupta, Pramod Chandra	260	Ditto.	
Mitra, Durga Prasanna	261	Ditto.	

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No 2—*contd.*

Names of persons to whom first and second class coal mine managers' certificates of competency and surveyors' certificates of competency were granted during the year 1937—*contd.*

INDIAN CLERKSHIP—*contd.*

(2) SECOND CLASS

Name	No of certificate	Date of cert issue	INITIALS
Mukherjee Chandra Lalba	50	1st April 1937	
Srinivasan Govindaswami	51		
Krishnan Subbaswami Iyer Gopala	52		
Chatterjee Hemendra Nath	53		
Hogers Clarence Arnold Joseph	54		
Bhat Hemant Kumar Kr Shampasad	55		
Ghosh D Kash Chandra	56		
Tayab Mohammed	57		
Ghose Hari Charan	58		
Ghose H ran Kumar	59		
Chowdhury Vagendra Mohan	60		
Burman Kart o Chandra	61		
Adh kary Bhupendra Nath	62		
Maitly V Imom	63		
Verman Achyuta Nand	64		
Roy D bhuti Bhuvan	65		
Raz Saifad Riyazul Hasan	66		
Paul Manmatha Nath	67		
Dutt Sudhanshu Kumar	68		
Ghatak Hari Pada	69		
Gandhar Kashi Prasad	70		
Danverjee Aj t Kumar	71		

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 4—*contd.*(ii)—*contd.*

81. Manipur	Seth Isser Dass	Manure	Gaya	Gaya.
82. Manipur	Azimuddin Basant Lal	Do	Do	Do.
83. Pimpri	Bengal and North-Western Railway.	Sukharpur	Monghyr	Monghyr.
84. Girindia	Melaram and Basantlal	Girindia	Do	Do.
85. Bodma	A. V. Sam	Bodma	Jamtara	Santal Ganas.
86. Tinpahar	Chatterjee Shaw & Co.	Tinpahar	Rajmahal	Do.
87. Manikpur	Birendra Nath Shah	Matijharna	Do	Do.
88. Tinpahar	Seth Teomal	Tinpahar	Do	Do.

(iii) For the sub-head "Fireclay Mine" and the entry thereunder the following sub-head and entries shall be substituted, namely:—

"Fireclay Mine."

"1. Morrah	Bengal Coal Co., Ltd.	Morrah	...	Manbhum.
2. Sangomohal	Bihar Firebricks & Potteries, Ltd.	Sangomohal	Dhanbad	Do.
3. Chahabar	Do	Chahabar	Do	Do.
4. Rangamati	Burn & Co., Ltd.	Rangamati	Do	Do.
5. Gulfarbati	Do	Gulfarbati	Do	Do.
6. Mugma Birsingpur	D N. Chowdhury	Mugma Birsingpur	Do	Do.
7. Kapasara	Amrit Ahmed Khan	Kapasara	Do	Do.
8. Palasia	Alladad Khan	Palasia	Do	Do.
9. Jograd	Dina Nath Gorai	Jograd	Do	Do.
10. Kethardih	Haripada Goswami	Kethardih	Do	Do.

III.—Under the head "(Bomday Presidency)", to the entries under the sub-head "Stone Mines" the following entries shall be added, namely:—

"31. Tamdi Khan	Lal Khan Imambhai	Tamdi	F. Ward	Town and Island of Bombay.
32. Sewree	Bhagat Sing Naji	Sewree	Do	Do.
33. Tamdi Khan	Rasid Banoo Savakshav	Do	Do	Do.
34. Tamdi Khan	Soloman M. Haskeil	Do	Do	Do.

APPENDIX IV—contd.

Miscellaneous—contd.

Statement No. 4—contd.

IV—Under the head “(Burma)”

- (i) For the sub head “Limestone Mine” the following sub head shall be substituted, namely —
- “Limestone Mines”
- (u) to the entries under the said sub head the following entry shall be added, namely —
- | | | |
|------------|---|--|
| “Kung tong | Burma Corporation, Ltd., Mile 26.9 Kung- Tashio | North Hsenwi State (North Shan States) |
|------------|---|--|
- V—To the entries under the head “(Central Provinces)” the following sub head and entries shall be added, namely —

“Bauxite Mines”

- | | | | | |
|---------|---------------------|-------|---------|-----------|
| 1 Tikur | K. P Pandey | Tikur | Murwara | Jubbulpur |
| 2 Tikur | C. L. Pathak & Sons | Do | Do | Do |

VI—Under the head “(Madras Presidency)”

- (i) Under the sub head “Stone Mines” for entries 16 and 17 the following entries shall be substituted, namely —

- | | | | |
|------------------|--|----------------|---------------------------|
| 16 Mogaipattur | Military Department | Trichinopoly | Trichinopoly |
| 17 Mogaipatturam | Government of Madras, Works Department | Mogalrajapuram | Bazada Taluk Kista |
| 18 Pakkam | South Indian Railway | Pakkam | Madurai Taluk Chingalepur |

(u) Under the sub head “Barytes Mines” —

- (a) in the second column for the word “Kothapalli” the following shall be substituted namely —

“Kothapalli S No 288”

(b) after entry 3 the following shall be inserted namely —

- | | | |
|------------------|------------------------|-------------------------|
| “A Vemula | (A Krishnappa and Sons | Pallayen di a Gudalapal |
| No 281-5-278 and | | |
| 279 | | |

5 Mondipalli

Do

Kothapalli (S
No 517 2 and
517-3)

Do

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 4—*contd.*

6. Vemula No. 981-5).	(S. Timm & Co. Vemula P a l i v o n d a l a Cuddapah Taluk.	Do. Do. Do. Do. Do.
7. Vemula No. 1021).	(S. Do. Do. Do. Do.	Do. Do. Do. Do. Do.

"Limestone Mine" ;

VII.—Under the head "Punjab" to the entries under the sub-head "Stone Mine" the following entry shall be added, namely:—

"6. Ghuribwal (Jullana North Jullana Pind Khan. Dadan Jhelum." Western Railway quarry).

VIII.—Under the head "(United Provinces)".

(i) For the sub-head "Stone Mines" the following sub-head shall be substituted, namely:—

"Stone Mines" ;

(ii) to the entry under the said sub-head the following entries shall be added, namely:—

"2. Shankergarh Sheikh Hidayatullah Tala Allahabad Allahabad.	3. Shankergarh Jethanand Do. Do. Do.	4. Shankergarh Govindram Sindi Benipur Do. Do.	5. Shankergarh Para Ram Shankergarh Do. Do.	6. Hajitola (Shan- Govindram Sindi Hajitola Do. Do.	7. Lakhanpur (Shan- T. P. Pandey & Sons Lakhanpur Do. Do.	8. Kulmajra Para Ram Kulmajra Marw Banda.	9. Kulmajra Bhagwandin Do. Do. Do.	10. Sheora Nazir Inseain Gulpura Jhansi-Jath Jhansi.	11. Sheora Ram Harak Do. Do. Do.	12. Sheora Ram Charan and Ram Tari Do. Do. Do.	13. Sheora Dobi Sahai and Kali Do. Do. Do.	14. Sheora Murhidhar and Tek Chand Do. Do.	15. Chandpur Jabaz- Ranshir Singh Chandpur Jabaz- Lalitpur Do. Do.	16. Chandpur Jabaz- Shiam Lal Tara Chand Jhigawan Do. Do. Do.
---	--	--	---	---	---	---	--	--	--	--	--	--	--	---

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 6.

NOTIFICATION.

New Delhi, the 1st February 1937.

No. M.-1055.—In exercise of the powers conferred by section 29 of the Indian Mines Act, 1923 (IV of 1923), the Governor General in Council is pleased to make the following regulations, which have been previously published as required by sub-section (1) of section 31 of the said Act, namely:—

Regulations for prohibiting the employment of women underground in mines.

1. On or after the 1st day of July 1937, no woman shall be permitted to enter for purposes of employment, or be employed in, the underground workings of any mine.

Explanation.—"Underground workings" means any part of a mine situated beneath the superjacent ground, and includes vertical shafts provided for access to, or for the ventilation of such part; but does not include tunnels made and used only for convenience in disposing of spoil.

2. Regulation 1 shall not apply to women employed in health and welfare services.

3. No woman shall be permitted to enter or remain in the underground workings of any mine unless she is in possession of a pass granted by the manager of the mine.

4. Before a woman enters a mine with a pass granted under regulation 3, her name, address and occupation shall be entered in a register maintained for this purpose at the surface of the mine, and her exit from the mine shall also be recorded in that register.

Provided that in any mine to which sub-section (4) of section 28 of the Indian Mines Act, 1923 (IV of 1923), has been declared to be applicable, the entries required by this regulation may be made in the register prescribed by that sub-section.

Statement No. 7.

NOTIFICATION.

New Delhi, the 25th February 1937.

No. M.-1055.—In exercise of the powers conferred by sub-section (1) of section 46 of the Indian Mines Act, 1923 (IV of 1923), the Governor General in Council is pleased to direct that the following further amendments shall be made in the Schedule to the notification of the Government of India in the Department of Industries and Labour, No. M.-1051, dated the 1st October 1935, namely:—

I. In column 3 against entry 1, after condition (2) the following condition shall be inserted, namely:—

"(3) The owner, agent or manager of any mine so exempted shall not permit any female to enter for purposes of employment, or be employed in the underground workings, if any, of the mine."

II. In column 3 against entries 4 and 9 the following condition shall be inserted, namely:—

"The owner, agent or manager of any mine so exempted shall not permit any female to enter for purposes of employment, or be employed in the underground workings, if any, of the mine."

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 8.

The 13th March 1937.

No. 453—VIII-M-7/37-Com.—In exercise of the powers conferred by clause (a) of section 30 of the Indian Mines Act, 1923 (IV of 1923), the Government of Bihar are pleased to make the following rules—

A—Mining Board for Coal Mines

- 1 Of the two members to be nominated under section 10(1)(d) —
 - (a) One shall be nominated by the Indian Mining Association, and
 - (b) One shall be nominated as the result of an election held by an electoral college consisting of the members of the Indian Mining Association and the Indian Colliery Owners Association. At such election no member of the electoral college shall have more than one vote
- 2 Two members shall be nominated under section 10(1)(e), to represent the interest of miners, in the following manner —
 - (a) If the registered trade unions in the province of Bihar have in the aggregate as members not less than one quarter of the miners employed in the province, the said registered trade unions shall nominate two persons to represent the interest of miners
 - (b) If the registered trade unions in the province of Bihar have in the aggregate as members less than one quarter of the miners employed in the province, but not less than 1,000 the miners, and the local Government shall nominate one person to represent the interest of the miners, the local Government shall nominate both persons
 - (c) If the registered trade unions in the province have in the aggregate less than 1,000 members, the local Government shall nominate one person to represent the interest of the miners, and the local Government shall nominate one person to represent the interest of the miners, call on one registered trade union to nominate a person in the following order —

- (1) The Indian Colliery Labour Union,
 - (2) The Tata's Colliery Labour Association,
 - (3) The Indian Miners' Association,
- and this rotation shall be observed for all subsequent vacancies

- 3 A person nominated under section 10(1)(d) or 10(1)(e) shall hold office for a period of two years from the date of the notification appointing him to be a member of the Board
- 4 The Chairman of the Board shall be authorised to accept the resignation of any member who is unable or unwilling to serve on the Board
- 5 As soon as may be on the occurrence of a vacancy or before it, if possible the Chairman shall inform the local Government, so that the vacancy may be filled. A retiring member shall be eligible for re-nomination.

B Absence from India —

- (i) Before a member of the Board leaves India, he shall intimate to the Chairman the date of his departure and the date of his expected return to India, and
- (b) If he intends to be absent from India for a longer period than six months he shall tender his resignation to the Chairman

- (ii) If any member leaves India without taking either of the courses mentioned in sub-rule (i) he shall be deemed to have resigned, with effect from the date of his departure from India

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 6.

NOTIFICATION.

New Delhi, the 1st February 1937.

No. M.-1055.—In exercise of the powers conferred by section 29 of the Indian Mines Act, 1923 (IV of 1923), the Governor-General in Council is pleased to make the following regulations, which have been previously published as required by sub-section (1) of section 31 of the said Act, namely:—

Regulations for prohibiting the employment of women underground in mines.

1. On or after the 1st day of July 1937, no woman shall be permitted to enter for purposes of employment, or be employed in, the underground workings of any mine.

Explanation.—"Underground workings" means any part of a mine situated beneath the superjacent ground, and includes vertical shafts provided for access to, or for the ventilation of such part; but does not include tunnels made and used only for convenience in disposing of spoil.

2. Regulation 1 shall not apply to women employed in health and welfare services.

3. No woman shall be permitted to enter or remain in the underground workings of any mine unless she is in possession of a pass granted by the manager of the mine.

4. Before a woman enters a mine with a pass granted under regulation 3, her name, address and occupation shall be entered in a register maintained for this purpose at the surface of the mine, and her exit from the mine shall also be recorded in that register.

Provided that in any mine to which sub-section (1) of section 28 of the Indian Mines Act, 1923 (IV of 1923), has been declared to be applicable, the entries required by this regulation may be made in the register prescribed by that sub-section.

Statement No. 7.

NOTIFICATION.

New Delhi, the 25th February 1937.

No. M.-1055.—In exercise of the powers conferred by sub-section (1) of section 46 of the Indian Mines Act, 1923 (IV of 1923), the Governor-General in Council is pleased to direct that the following further amendments shall be made in the Schedule to the notification of the Government of India in the Department of Industries and Labour, No. M.-1051, dated the 1st October 1935, namely:—

In the said Schedule—

I. In column 3 against entry 1, after condition (2) the following condition shall be inserted, namely:—

"(3) The owner, agent or manager of any mine so exempted shall not enter for purposes of employment, or be employed in the mine, if any, of the mine."

II. In column 3 against entries 4 and 9 the following condition shall be inserted:—

"The owner, agent or manager of any mine so exempted shall not enter for purposes of employment, or be employed in the underground mine."

the

APPENDIX IV—contd.

Miscellaneous—contd.

Statement No. 8.

The Jalk Mawh 1937.

No. 453—VIII-M-7/37-Com.—In exercise of the powers conferred by clause (a) of section 39 of the Indian Mines Act, 1923 (IV of 1923), the Government of Bihar are pleased to make the following rules.—

A—Mining Board for Coal Mines

- 1 Of the two members to be nominated under section 10(1)(d) —
 - (a) One shall be nominated by the Indian Mining Association, and
 - (b) One shall be nominated as the result of an election held by an electoral college consisting of the members of the Indian Mining Federation and the Indian Colliery Owners Association. At such election no member of the electoral college shall have more than one vote.
- 2 Two members shall be nominated under section 10(1)(e), to represent the interest of miners, in the following manner —
 - (a) If the registered trade unions in the province of Bihar have in the aggregate as members not less than one quarter of the miners employed in the province, the said registered trade unions shall nominate two persons to represent the interest of miners
 - (b) If the registered trade unions in the province of Bihar have as members less than one quarter of the miners employed in the province, but not less than 1,000 the said registered trade unions shall nominate one person to represent the interest of the miners, and the local Government shall nominate the other person
 - (c) If the registered trade unions in the province have in the aggregate less than 1,000 members, the local Government shall nominate both persons
 - (d) If the registered trade unions are unable to agree as to what person or persons shall be nominated under part (a) or (b) of this rule, the local Government shall for each vacancy, call on one registered trade union to nominate a person in the following order —

(1) The Indian Colliery Labour Union,

(2) The Tata's Colliery Labour Association,

(3) The Indian Miners' Association,

and this rotation shall be observed for all subsequent vacancies

- 3 A person nominated under section 10 (1)(d) or 10(1)(e) shall hold office for a period of two years from the date of the notification appointing him to be a member of the Board
- 4 The Chairman of the Board shall be authorized to accept the resignation of any member who is unable or unwilling to serve on the Board
- 5 As soon as may be on the occurrence of a vacancy or before it, if possible the Chairman shall inform the local Government, so that at the vacancy may be filled. A retiring member shall be eligible for re-nomination

B Absence from India —

- (i) Before a member of the Board leaves India
- (a) he shall intimate to the Chairman the date of his departure and the date of his expected return to India, and
- (b) if he intends to be absent from India for a longer period than six months he shall tender his resignation to the Chairman
- (ii) If any member leaves India without taking either of the courses mentioned in sub rule (i) he shall be deemed to have resigned, with effect from the date of his departure from India

APPENDIX IV—*contd.*Miscellaneous—*could.*Statement No. 8—*could.*

7. The Board shall meet at such places and at such times as may be appointed by the Chairman.
8. The Secretary shall conduct all the correspondence of Board, keep its accounts and record the proceedings of each meeting in a minute book, kept for permanent record. The record shall be signed by the Chairman.
9. The Secretary shall give due notice to the members of the Mining Board of the date fixed for each meeting, and shall furnish each with the agenda of the business to be discussed.
10. A quorum of the Board shall consist of—

- (a) the Chairman;
- (b) the Chief Inspector or an Inspector of Mines appointed under section 10(1)(b);
- (c) one person nominated under section 10(1)(d);
- (d) one person nominated under section 10(1)(e).

11. All questions or matters referred to the Board shall be decided by a majority of the votes of the members present.
12. The Chairman of the Board shall have a deliberative vote, and shall also in the case of an equal division have a casting vote.
13. Any member disagreeing with a decision of the Board may enter a note of dissent which shall form part of the record of the proceedings.
14. The Board shall have the power of consulting with such person or persons as they may in their discretion desire to consult.
15. It shall be open to the parties to any reference before the Board to appear at the hearing either in person or by solicitor or counsel or agent.
16. Unless otherwise directed by the Chairman the proceedings of the Board shall be held in private.

B.—Mining Board for Mines other than Coal Mines.

1. Of the two members to be nominated under section 10(1)(d):—
- (a) One shall be nominated by the Indian Mining Association, and
- (b) One shall be nominated as the result of an election held by an electoral college consisting of the members of the Indian Mining Federation and the Indian Colliery Owners' Association. At such election no member of the electoral college shall have more than one vote.
2. Two members shall be nominated under section 10(1)(e), to represent the interest of miners, in the following manner:—

- (a) If the registered trade unions in the province of Bihar have in the aggregate as members not less than one quarter of the miners employed in the province, the said registered trade unions shall nominate two persons to represent the interest of miners.
- (b) If the registered trade unions in the province of Bihar have in the aggregate as members less than one quarter of the miners employed in the province, but not less than 1,000 the said registered trade unions shall nominate one person to represent the interest of the miners and the local Government shall nominate the other person.
- (c) If the registered trade unions in the province have in the aggregate less than 1,000 members the local Government shall nominate both persons.
- (d) If there are two or more registered trade unions, and they are unable to agree as to what person or persons shall be nominated by them under part (a) or (b) of this rule, the local Government shall call on each registered trade union in turn to nominate a person to fill a vacancy, and the local Government shall decide the order in which such trade unions shall be placed for this purpose, and shall inform the trade unions concerned of such decision.

APPENDIX IV—*cont.*Miscellaneous—*cont.*Statement No 8—*contd.*

- 3 A person nominated under section 10(1)(d) or 10(1)(e) shall hold office for a period of two years from the date of the notification appointing him to be a member of the Board
- 4 The Chairman of the Board shall be authorised to accept the resignation of any member who is unable or unwilling to serve on the Board
- 5 As soon as may be on the occurrence of a vacancy or before it, if possible, the Chairman shall inform the local Government, so that the vacancy may be filled. A retiring member shall be eligible for re-nomination
- 6 *Absence from India*—

- (a) Before a member of the Board leaves India—

- (a) he shall intimate to the Chairman the date of his departure and the date of his expected return to India, and
- (b) if he intends to be absent from India for a longer period than six months, he shall tender his resignation to the Chairman
- (ii) If any member leaves India without taking either of the courses mentioned in sub-rule (a), he shall be deemed to have resigned with effect from the date of his departure from India

- 7 The Board shall meet at such places and at such times as may be appointed by the Chairman

- 8 The Secretary shall conduct all the correspondence of the Board keep its accounts and record the proceedings of each meeting in a minute book, kept for permanent record. The record shall be signed by the Chairman

- 9 The Secretary shall give due notice to the members of the Mining Board of the date fixed for each meeting, and shall furnish each with the agenda of the business to be discussed

- 10 A quorum of the Board shall consist of—

- (a) the Chairman,
- (b) the Chief Inspector or an Inspector of Mines appointed under section 10(1)(b)
- (c) one person nominated under section 10(1)(d),
- (d) one person nominated under section 10(1)(e)

- 11 All questions or matters referred to the Board shall be decided by a majority of the votes of the members present

- 12 The Chairman of the Board shall have a deliberative vote and shall also in the case of an equal division have a casting vote

- 13 Any member disagreeing with a decision of the Board may enter a note of dissent which shall form part of the proceedings

- 14 The Board shall have the power of consulting with such person or persons as they may in their discretion desire to consult

- 15 It shall be open to the parties to any reference before the Board to appear at the hearing either in person or by solicitor or counsel or agent

- 16 Unless otherwise directed by the Chairman, the proceedings of the Board shall be held in private

APPENDIX IV—*contd.*

Miscellaneous—*contd.*

Statement No 8—*concl'd*

3 A person nominated under section 10(1)(d) or 10(1)(e) shall hold office for a period of two years from the date of the notification appointing him to be a member of the Board

4 The Chairman of the Board shall be authorised to accept the resignation of any member who is unable or unwilling to serve on the Board

5 As soon as may be on the occurrence of a vacancy or before it, if possible, the Chairman shall inform the local Government, so that the vacancy may be filled. A retiring member shall be eligible for renomination

6 *Absence from India —*

(i) Before a member of the Board leaves India—

(a) he shall intimate to the Chairman the date of his departure and the date of his expected return to India, and

(b) if he intends to be absent from India for a longer period than six months, he shall tender his resignation to the Chairman

(ii) If any member leaves India without taking either of the courses mentioned in sub rule (i), he shall be deemed to have resigned with effect from the date of his departure from India.

7 The Board shall meet at such places and at such times as may be appointed by the Chairman

8 The Secretary shall conduct all the correspondence of the Board, keep its accounts and record the proceedings of each meeting in a minute book kept for permanent record. The record shall be signed by the Chairman

9 The Secretary shall give due notice to the members of the Mining Board of the date fixed for each meeting, and shall furnish each with the agenda of the business to be discussed

10 A quorum of the Board shall consist of—

(a) the Chairman,

(b) the Chief Inspector or an Inspector of Mines appointed under section 10(1)(b),

(c) one person nominated under section 10(1)(d),

(d) one person nominated under section 10(1)(e)

11 All questions or matters referred to the Board shall be decided by a majority of the votes of the members present

12 The Chairman of the Board shall have a deliberative vote and shall also in the case of an equal division have a casting vote

13 Any member disagreeing with a decision of the Board may enter a note of dissent which shall form part of the proceedings

14 The Board shall have the power of consulting with such person or persons as they may in their discretion desire to consult

15 It shall be open to the parties to any reference before the Board to appear at the hearing either in person or by solicitor or counsel or agent

16 Unless otherwise directed by the Chairman, the proceedings of the Board shall be held in private

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 9.

NOTIFICATION.

Simla, the 17th June 1937.

No. M.-1055.—In exercise of the powers conferred by section 46 of the Indian Mines Act, 1923 (IV of 1923), the Central Government are pleased to exempt for a period of three months from 1st July 1937 all coal mines in Bengal, Bihar, the Central Provinces and Orissa from the Provisions of clause (j) of section 29 of the said Act, to the extent to which regulations made thereunder prohibit the entry of women into underground workings for purposes of employment. This exemption is subject to the condition that the total number of women employed in the underground workings of any mine on any day shall not exceed 5 per cent. of the total number of persons so employed.

Statement No. 10.

NOTIFICATION.

Simla, the 10th July 1937.

No. M.-966.—In exercise of the powers conferred by sections 29 and 31A of the Indian Mines Act, 1923 (IV of 1923), the Central Government is pleased to make the following further temporary regulations, being satisfied that for the prevention of apprehended danger or the speedy remedy of conditions likely to cause danger it is necessary in making these regulations to dispense with the delay that would result from their previous publication and reference to Mining Boards:—

Temporary Regulations for Coal Mines.

1. (1) These regulations may be called the Supplementary Coal Mines (Temporary) Regulations, 1937.

(2) They shall apply only in respect of coal mines.

2. In these regulations, "the principal Regulations" mean the Indian Coal Mines Regulation, 1926.

3. (1) The Chief Inspector may require the manager of any mine in which, or in any part of which, a mechanical ventilator is in use, to submit within one month Standing Orders specifying the action that shall be taken with respect to the withdrawal of workmen from such mine or such part of the mine in the event of a stoppage of the mechanical ventilator.

(2) The Chief Inspector may approve of such Standing Orders or may modify them if, in his opinion, they are defective in any respect, and shall give notice in writing to the manager that such Standing Orders as are approved by him shall be enforced at the mine.

(3) On receipt of the notice from the Chief Inspector the manager shall post the Standing Orders in conspicuous places at the mine both above and below ground and shall be responsible for securing effective compliance with them.

4. (1) In any mine in which inflammable gas has been found during the previous twelve months, all unused workings in which inflammable gas may accumulate and which are not permanently sealed off, shall, at least once in every week, be inspected for the presence of inflammable gas, by the competent person appointed under regulation 70 of the principal Regulations.

(2) The inspection shall be made with a locked flame safety lamp of a type approved by the Chief Inspector, and no additional light shall be used, other than an electric torch or lamp of a type approved by the Chief Inspector.

(3) The result of every such inspection shall be reported by the person making it in the manner required by sub-regulation (5) of regulation 70 of the principal Regulations and shall be recorded in the book maintained in accordance with sub-regulation (2) of that regulation.

(4) Nothing in this regulation shall be construed to affect the provisions of regulation 70 of the principal Regulations.

APPENDIX IV—*cont'd*Miscellaneous—*cont'd*.Statement No. 10—*cont'd*

- (2) The person conducting the search shall—
- (a) search or turn out all pockets,
 - (b) pass his hand over all clothing, and
 - (c) examine any article in the workman's possession

possession

regulations the
of the said
manager for
every well,

(2) If any lamp is found to be defective, it shall not be reissued for use until the defect has been remedied

7 (1) A competent person appointed in writing by the manager for the purpose shall examine every safety lamp on its being returned, after use underground

(2) If on such examination any lamp is found to be damaged or misused he shall record the nature of the damage or misuse in a book to be kept at the mine for the purpose, and every new entry in the book shall be shown to the manager without delay

8 The principal Regulations shall be read as if for clause (b) of regulation 127 the following clause were substituted, namely—

“(b) (i) A competent person appointed in writing by the manager for the purpose shall examine every safety lamp at the surface immediately before it is taken underground for use and shall assure himself, as far as practicable, from external observation that each lamp is in safe working order and securely locked

(ii) The competent person referred to in sub clause (i) shall not be the banksman except in a mine where the number of persons employed underground is not more than 50 at any one time

Statement No. 11.

PRESS COMMUNIQUE

Simla, the 10th September 1937.

Regulations under the Indian Mines Act

complete exclusion of women from
is intended to come into effect
of coal mines in Bengal Bihar,
ded to grant no further exten
1st of October

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 12.

NOTIFICATION.

Nagpur, the 25th January 1937.

No. 227-3314-XIII of 33.—In exercise of the powers conferred by section 30 of the Indian Mines Act, 1923 (IV of 1923), as subsequently amended, the Governor in Council is pleased to make the following amendments to the Central Provinces Regulation and Inspection of Mines Rules, 1924, published under the Central Provinces Gazette No. 2226-1820-XIII, dated the 24th September 1924 (as subsequently amended):—

Amendments.

1. For rule 3, the following rule shall be substituted, namely:—

“3. The persons nominated under section 10 (1) (c), section 10 (1) (c) (ii) and section 10 (1) (e) (iii) shall be such persons as the Local Government may select.

2. For rule 5 the following rule shall be substituted, namely:—

“5. A person nominated under section 10 (1) (c), section 10 (1) (d) or section 10 (1) (e) shall hold office for a term of three years from the date of the notification appointing him as a member of the Board:

Provided that an outgoing member shall continue in office until the appointment of his successors is notified; and

Provided further that the Local Government may, by notification, at any time terminate the term of office of a person nominated by it as a member of the Board under the provisions of section 10 (1) (c) in order to replace him by a person nominated by a trade union or trade unions in the prescribed manner under the said provisions.”

3. In the heading of Chapter II, for the words “Court of Inquiry”, the words “Accidents and Court of Inquiry”, and for the word, figures and letter “section 30 (b)”, the words, figures and letters “section 30 (aa) and (b)” shall be substituted.

4. In Chapter II, the following rule shall be inserted as rule 19, and present rules 19 and 19-A shall be renumbered as rules 19-A and 19-B, respectively:—

“19. If the Local Government has, by notification, directed that accidents of the kind referred to in section 20 (2) occurring in or about any mines shall be entered in a register, the same shall be entered in a register to be maintained in Form G called the Register of Minor Accidents:

Provided that this rule shall not apply to accidents involving any injury which does not result in the enforced absence from work of the person injured for a period exceeding seven days.”

5. In the heading under Chapter V for the words, figures and letters “section 30 (cc), (d), (f) and (k)” the words, figures and letters “section 30 (cc), (d), (e), (ee), (f) and (k)” shall be substituted.

6. For rule 29, the following revised rule shall be substituted, namely:—

“29. The register of all persons employed in the mine prescribed by section 28 (1) shall be maintained in Form A-1 at the office of the mine. It shall show all changes, excluding merely temporary or casual changes, in the nature of employment of each person.”

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 12—*contd.*NOTIFICATION—*contd.*

Nagpur, the 25th January 1937—contd.

7. After rule 29 B, the following new rule shall be inserted, namely —

"29-C For every mine to which the provisions of section 28 (4) are applied by the Local Government by general or special order, there shall be kept at the office of the mine a register in Form A 2 of persons working below ground in the mine"

8. After rule 31, the following rule shall be inserted, namely

"31 A Before any person who has not completed his seventeenth year is employed underground, the manager shall arrange to have him examined by a qualified medical practitioner and if after examination the medical practitioner is of opinion that such person is fit for employment underground, he shall grant him a certificate in Form II

31 B (1) Every certificate granted by a qualified medical practitioner shall be prepared by filling up the foil and counterfoil on both of which shall be impressed the left thumb mark of the person in whose name the certificate is granted

(2) The qualified medical practitioner shall when satisfied as to the correctness of the entries made therein, sign the foil and initial the counterfoil and shall deliver the foil to the manager for safe custody.

(3) No certificate granted under rule 31 A shall be valid for a period exceeding twelve months. Every person in respect of whom a certificate of fitness has been issued shall be re-examined within twelve months of the last previous examination unless in the mean time he has completed his seventeenth year and the qualified medical practitioner making such re-examination may renew the certificate for a further period not exceeding twelve months or may suspend or revoke the said certificate

(4) A qualified medical practitioner who refuses to grant a certificate referred to in rule 31 A or

(5) Every person who has been certified as fit for employment underground shall before he is so employed be provided by the manager with a metal token. Such token shall be stamped with the letter "P" and numbered. The number shall be the same as that of the certificate of fitness

(6) A record of every token so issued and the person to whom it was issued shall be maintained in the office of the mine

(7) Certificates prescribed by clause (a) of section 26 A may be granted by a mine medical officer who is declared to be a qualified medical practitioner

9. For the existing forms "A 1, A 2, E and I" the accompanying revised forms 'A 1, A 2, E and F' shall be substituted

10. After form "F" the accompanying forms "G and H" shall be inserted

Miscellaneous—contd.

Statement No. 12—*contd.*

FORM 11.

(RULE 20-B FOR MINES WITH NO RELAY SYSTEM.,

Notice of commencement of work, commencement of rest interval, end of rest interval and end of work as required by section 23-B (1) of the Indian Mines Act.

Name of mine.....

Name of owner of mine.....

It is hereby notified that persons employed in this mine shall begin their work, take rest intervals and end their work at the hours set out below —

Kind of worker.	Beginning of work.	Commencement of rest interval.	End of rest interval.	End of work.

APPENDIX IV. *contd*

Miscellaneous—*contd*

Statement No. 12—*contd*

FORM F.

(RULE 20 IS FOR MINES WORKED BY A SYSTEM OF RELAYS)

Name of mine, *Notes of commencement of work, con- tinuement of rest interval, end of rest interval and end of work.*

Name of owner of mine.

Name of person notified that persons employed in this mine shall begin their relays of work, take rest intervals and end their relays of work between the hours set out below:

It is hereby notified that persons employed in this mine shall begin their relays of work, take rest intervals and end their relays of work between the hours set out below:

First relay.				Second relay.				Third relay.			
Beginning of relay.	Commence- ment of rest interval.	End of rest interval.	End of relay.	Beginning of relay.	Commence- ment of rest interval.	End of rest interval.	End of relay.	Beginning of relay.	Commence- ment of rest interval.	End of rest interval.	End of relay.
4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.
4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.
4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.	4 M. P. M.

1 2 3 4 5 6 7 8 9 10 11 12

Statement No. 12--*cont'd*

Register of a non-accidental coal mine only. (Sections 29 (2) and 30 (a) of the Indian Mines Act or Rule 12 of the Central Provinces Regulation and Inspection of Mines Rules, 1924, as amended.)

Date of the entry.	Date of the accident.	Name of the person injured.	Nature of work.	Nature of injury.	Nature of accident.	Duration of enforced absence from work.	Signature of Manager.
1	2	3	4	5	6	7	8

NOTE.—A copy of the entries should be sent by the owner, agent or manager of the mine within fourteen days after 30th June and 31st December in each year to the Chief Inspector of Mines in India, Dhanbad.

APPENDIX IV—*contd*Miscellaneous—*contd*Statement No. 12—*contd*

FORM II

[Rule 13 A]

Certificate of fitness to work

1 Serial No. _____	Serial No _____
2 Date _____	Date _____
3 Name _____	I hereby certify that I have personally examined (name) _____
4 Father's name _____	_____
5 Sex and caste or religion _____	son daughter of _____
6 Residence _____	caste _____
7 Age _____	residence of _____
8 Physical fitness _____	who is desirous of being employed in a mine
9 Distinction of marks _____	and that $\frac{\text{his}}{\text{her}}$ age as nearly as can be ascertained from my examination is _____
10 Reasons for— (a) Refusal of certificate _____ _____	years and that $\frac{\text{he}}{\text{she}}$ is fit for employment in a mine $\frac{\text{His}}{\text{Her}}$ distinguishing marks are _____ _____
(b) Certificate being revoked _____ _____	_____
Left hand thumb impression _____	Left hand thumb impression _____

Initial of the qualified medical practitioner

Signature of the person for
a grandfather

Note—Exact details of cause of physical disability should be clearly stated.

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 13.

NOTIFICATION.

Nagpur, the 25th January 1937.

No. 228-3314-XIII of 1936.—In exercise of the powers conferred by section 30 of the Indian Mines Act, 1923 (IV of 1923), as applied to Berar, as subsequently amended, the Governor in Council is pleased to make the following amendments to the Berar Regulation and Inspection of Mines Rules, 1924, published with the Central Provinces Gazette Notification No. 2227-1820-XIII, dated the 24th September 1924 (as subsequently amended):—

Amendments.

1. In the headings of Chapter I, for the words "Court of Inquiry", the words "Accidents and Court of Inquiry", and for the word, figures and letter "section 30(b)", the words, figures and letters "section 30(a) and (b)" shall be substituted.

2. In Chapter I the following rule shall be inserted as rule 1, and present rules 1 and 1-A shall be renumbered as rules 1-A and 1-B, respectively:—

"1. If the Local Government has, by notification, directed that accidents of the kind referred to in section 20(2) occurring in or about any mines shall be entered in a register, the same shall be entered in a register to be maintained in Form G called the Register of Minor Accidents:

Provided that this rule shall not apply to accidents involving any injury which does not result in the enforced absence from work of the person injured for a period exceeding seven days".

3. In the heading under Chapter IV for the words, figures and letters "section 30(cc), (d), (f) and (k)" the words, figures and letters "section 30(cc), (d), (e), (ee), (f) and (k)" shall be substituted.

4. For rule 11, the following revised rule shall be substituted, namely:—

"11. The register of all person employed in the mine prescribed by section 28(1) shall be maintained in Form A-1 at the office of the mine. It shall show all changes, excluding merely temporary or casual changes, in the nature of employment of each person".

5. After rule 11-B, the following new rule shall be inserted, namely:—

"11-C. For every mine to which the provisions of section 28(4) are applied by the Local Government by general or special order, there shall be kept at the office of the mine a register in Form A-2 of persons working below ground in the mine".

6. After rule 13, the following rules shall be inserted, namely:—

"13-A. Certificates prescribed by section 26-A of the Act shall be granted in Form H. The forms shall be kept in a bound book in foil and counterfoil and numbered consecutively.

13-B. Before any person who has not completed his seventeenth year is employed underground, the manager shall arrange to have him examined by a qualified medical practitioner and, if after examination the medical practitioner is of opinion that such person is fit for employment underground, he shall grant him a certificate in the Form in Schedule D.

13-C. (1) Every certificate granted by a qualified medical practitioner shall be prepared by filling up the foil and counterfoil on both of which shall be impressed the left thumb-mark of the person in whose name the certificate is granted.

APPENDIX IV—*contd*Miscellaneous—*contd*Statement No 13—*contd*.NOTIFICATION—*contd*

Amendment, 2nd July 1937—contd

(2) The qualified medical practitioner shall when satisfied as to the correctness of the entries made therein sign the folio and initial the counterfoil and shall deliver the foil to the manager for safe custody.

(3) No certificate granted under rule 13 I shall be valid for a period exceeding twelve months. Every person in respect of whom a certificate of fitness has been issued shall be re-examined within twelve months of the last previous examination unless in the meantime he has completed his seventeenth year and the qualified medical practitioner making the re-examination may renew the certificate for a further period not exceeding twelve months or may suspend or revoke the said certificate.

(4) A qualified medical practitioner who refuses to grant a certificate referred to in rule 13 B or

(5) Every person who has been certified as fit for employment underground shall before he is so employed be provided by the manager with a metal token. Such token shall be stamped with the letter 'F' and numbered. The number shall be the same as that of the certificate of fitness.

(6) A record of every token so issued and the person to whom it was issued shall be maintained in the office of the mine.

(7) Certificate prescribed by clause (1) of section 6 A may be granted by a mine medical officer who is declared to be a qualified medical practitioner.

7 For the existing forms A 1 A 2 F and H the accompanying revised forms A 1 A 2 E and F shall be substituted.

8 After form F the accompanying forms G and H shall be inserted.

APPENDIX IV—contd.

Miscellaneous—contd.

Statement No. 13—contd.

FORM A-1.

(RULE 11).

Register of work persons employed in mines (both on surface and underground) [sections 28(1) and 30(f) and (k) of the Indian Mines Act, 1923, as amended.]

Name of mine _____

Name of owner _____

Serial No.	Name of worker with father's name and caste.	Age.	Sex.	Nature of his employment.	Periods of work fixed for him.		Intervals of rest if any, to which he is entitled.		The days of rest to which he is entitled.
					Begins A.M./ P.M.	Ends A.M./ P.M.	Begins A.M./ P.M.	Ends A.M./ P.M.	
1	2	3	4	5	6	7	8	9	10

Miscellaneous—contd.

Statement No. 13—*contd.*

FORM A 2.

(Rule 11 C)

(Persons entering the mine shall be shown by a x in the column marked "In" against the name)
(Persons leaving the mine shall be shown by a x in the column marked "Out" against the name)
(All entries shall be made in ink)

Period of work commences at _____

PM
A.K

Period of work ends at _____

PM
4.21

For week commencing

and ending

[illegible]

Total number of persons underground--

Total number of women underground—

Percentage of persons below ground who are women—

APPENDIX IV—contd.

Miscellaneous—contd.

Statement No. 13—contd.

FORM A-1.

(RULE 11).

Register of work persons employed in mines (both on surface and underground) [sections 28(1) and 30(f) and (k) of the Indian Mines Act, 1923, as amended.]

Name of mine _____

Name of owner _____

Serial No.	Name of worker with father's name and caste.	Age.	Sex.	Nature of his employment.	Periods of work fixed for him.		Intervals of rest if any, to which he is entitled.		The days of rest to which he is entitled.
					Begins A.M./ P.M.	Ends A.M./ P.M.	Begins A.M./ P.M.	Ends A.M./ P.M.	
1	2	3	4	5	6	7	8	9	10

APPENDIX IV—contd

Miscellaneous—cont'd

Statement No. 13—cont'd

FORM A 2

(RULE 11 C)

Registering of persons working below ground in respect of all coal mines and other mines having underground workings, to which provisions of section 28(4) of the Indian Mines Act, have been made applicable by a general or special order of the Local Government

(Persons entering the mine shall be shown by a x in the column marked "In" against the name)

(Persons leaving the mine shall be shown by a X in the column marked "Out" against the name)

(All entries shall be made in ink)

Period of work commences at

PM
A-M

Period of work ends at

$$\frac{P M}{A M}$$

For week commencing

and ending

[illegible]

Total number of persons underground—

Total number of women underground—

Percentage of persons below ground who are women—

Signature of Register Keeper

Miscellaneous—*contd.*

Statement No. 13—*contd.*

FORM E.

(RULE 11-B FOR MINES WITH NO RELAY SYSTEM).

Notice of commencement of work, commencement of rest interval, end of rest interval and end of work as required by section 23-B (1) of the Indian Mines Act.

Name of mine.....

Name of owner of mine.....

It is hereby notified that persons employed in this mine shall begin their work, take rest intervals and end their work at the hours set out below :—

[illegible]

Miscellaneous—cont'd

Statement No. 13--cont'd

of 250000 T

(11) IN 1964 W RPTD BY A SYSTEM OF PLAYS)

 $\Delta t_{\text{eff}} = \Delta t_{\text{eff}} + \Delta t_{\text{eff}}$ is the effective time interval, end of test interval in end of week

Not in evidence

Number of years of experience

It is not yet little that we must begin their relays of work, take rest intervals and then their relays of work between the living

[illegible]

As the flow of the current pulled away the last two inches from the time when they finally started floating out from the bridge, it was

Miscellaneous—contd.

Statement No. 13—contd.

FORM G.

Name of mine.....

Date of the entry.	Date of the accident.	Name of the person injured.	Nature of work.	Nature of injury.	Nature of accident.	Duration of enforced absence from work.	Signature of manager.
1	2	3	4	5	6	7	8

NOTE.—A copy of the entries should be sent by the owner, agent or manager of the mine within fourteen days after 30th June and 31st December in each year to the Chief Inspector of Mines in India, Dhanbad.

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 13—*contd.*

FORM II

[RULE 13 A]

Certificate of fitness to work

1	Serial No _____	Serial No _____
2	Date _____	Date _____
3	Name _____	I hereby certify that I have personally examined (name) _____
4	Father's name _____	_____
5	Sex and caste or religion _____	_____ son of _____ daughter _____
6	Residence _____	caste _____ resident of _____
7	Age _____	_____
8	Physical fitness _____	who is desirous of being employed in a mine
9	Distinction of marks _____	and that ^{his} age, as nearly as can be ascer- her tained from my examination, is _____
10	Reasons for— (a) Refusal of certificate _____ _____	years and that ^{he} is fit for employment in a she mine
	(b) Certificate being revoked _____ _____	His description marks are _____ Her _____

Left hand thumb impress on.

Left

Initial of the qualified medical practitioner

Note—Exact details of cause of phy-
sical disability should be clearly stat-

Miscellaneous—contd.

Statement No. 13—contd.

Register of minor accidents in coal mines only. [Sections 20(2) and 30 (aa) of the Indian Mines Act and rule 11 of the Berar Regulation and Inspection of Mines Rules, 1924, as amended.]

Name of mine.....

Date of the entry.	Date of the accident.	Name of the person injured.	Nature of work.	Nature of injury.	Nature of accident.	Duration of enforced absence from work.	Signature of manager.
1	2	3	4	5	6	7	8

NOTE.—A copy of the entries should be sent by the owner, agent or manager of the mine within fourteen days after 30th June and 31st December in each year to the Chief Inspector of Mines in India, Dhanbad.

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 13—*contd.*

FORM H

[RULE 13 A]

Certificate of fitness to work

1 Serial No _____	Serial No _____
2 Date _____	Date _____
3 Name _____	I hereby certify that I have personally examined (name) _____
4 Father's name _____	_____
5 Sex and caste or religion _____	son of _____ daughter _____
6 Residence _____	caste _____
7 Age _____	resident of _____
8 Physical fitness _____	who is desirous of being employed in a mine
9 Distinction of marks _____	and that ^{his} / _{her} age as nearly as can be ascer- tained from my examination, is _____
10 Reasons for— (a) Refusal of certificate _____ _____	years and that ^{he} / _{she} is fit for employment in a mine ^{His} / _{Her} description marks are _____
(b) Certificate being revoked _____ _____	_____
Left hand thumb impression. _____	_____

Initial of the qualified medical practitioner

Left hand thumb impression

NOTE—Exact details of cause of physical disability should be clearly stated

*Signature of the qualified
medical practitioner*

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 14.

NOTIFICATION.

15th July, 1937.

No. 5800—1 M-5/1937-Com.—In exercise of the powers conferred by section 30 of the Indian Mines Act, 1923 (IV of 1923), read with sub-paragraph (2) of paragraph 8 of the India and Burma (Transitory Provision) Order, 1937, the Government of Orissa are pleased to direct that the following amendments shall be made to the rules for coal mines and the rules for mines other than coal mines, published with Bihar and Orissa Government, Notification No. 2608 -VIIM-2-Com., dated the 8th September 1924, and which are in force in the areas transferred from the late Bihar and Orissa Province to the Province of Orissa :—

Amendments in the Rules for Coal Mines.**1. In Chapter III of the rules for coal mines—**

(a) For rule 9, the following rule shall be substituted :—

9. The register of all persons employed in the mine shall be maintained, as required by sub-section (1) of section 28 of the Act, in the form shown in Schedule A. The register shall be kept at the office of the mine.

(b) For rule 9-A, the following rule shall be substituted :—

9-A. The register required by sub-section (4) of section 28 of the Act shall be maintained in the form shown in Schedule F and all entries therein shall be made at the entrance or entrances to the mine and at the time when the person against whose name the entries are made entered or left the mine. The register shall be kept at the entrance of the mine.

(c) After rule 11, the following rule shall be inserted as rule 11-A :—

11-A. The register of accidents referred to in sub-section (2) of section 20 of the Act shall be in the form shown in Schedule D.

2. After Chapter VI of the rules for coal mines, the following new Chapter VI-A shall be inserted and the rules in Chapter VII renumbered 30 to 34 :—

CHAPTER VI-A.

Certificate of fitness for employment underground of persons who have not completed 17 years of age.

23. Before any person who has not completed his seventeenth year is employed underground, the manager shall arrange to have him examined by a qualified medical practitioner and, if after examination the medical practitioner is of opinion that such person is fit for employment underground, he shall grant him a certificate in the Form in Schedule E.

24. Every certificate granted by a qualified medical practitioner shall be prepared by filling up the foil and counterfoil on both of which shall be impressed the left thumb mark of the person in whose name the certificate is granted.

25. The qualified medical practitioner shall, when satisfied as to the correctness of the entries made therein, sign the foil and initial the counterfoil, and shall deliver the foil to the manager for safe custody.

26. No certificate granted under rule 23 shall be valid for a period exceeding twelve months. Every person in respect of whom a certificate of fitness has been issued shall be re-examined within twelve months of the last previous examination unless in the meantime he has completed his seventeenth year and the qualified medical practitioner making such re-examination may renew the certificate for a further period not exceeding twelve months or may suspend or revoke the said certificate.

Miscellaneous—cont'd

Statement No. 14—contd.

CHAPTER VI A—cont'd

27. A qualified medical practitioner who refuses to grant a certificate referred to in rule 23 or recommends a course of treatment shall be liable to a fine of \$100 for refusing to grant a certificate or for recommending a course of treatment. The manager of the institution shall refer the case to the Chief Medical Officer for decision to a second qualified medical practitioner and such decision shall be final.

29 A record of every token so issued and the person to whom it was issued shall be maintained in the office of the mine.

30 In the rule for coal mines—

(a) For the existing Schedule A, the following Schedule shall be substituted:—

SCHEDULE A.

(See Rule 2)

Regulator of employees

Name and caste of the employee.	Age.	Sex.	Nature of employment	Date of commencement of employment.	Periods of work.		Intervals for rest to which $\frac{he}{she}$ is entitled.		Days of rest to which $\frac{he}{she}$ is entitled.	Relays* to which $\frac{he}{she}$ belongs.
					Be- gins	Ends	Be- gins	Ends		
					A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.		

*In cases where work is carried on

*In names where work is carried on by a system of relays

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 14—*contd.*

(b) For the existing Schedule C the following Schedule shall be substituted :—

SCHEDULE C.

(See RULE 9-B.)

Notice of commencement and end of work.

Name of mine.....

Name of owner of mine.....

It is hereby notified that persons employed in this mine shall begin and end their periods of work between the hours set out below :—

Kind of worker.	1st relay.				2nd relay, if any.				3rd relay, if any.			
	Period of work.		Rest interval.		Period of work.		Rest interval.		Period of work.		Rest interval.	
	Be-gins.	Ends.	Be-gins.	Ends.	Be-gins.	Ends.	Be-gins.	Ends.	Be-gins.	Ends.	Be-gins.	Ends.
	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.

Note.—The words and letters not wanted should be scored out.

In the case of underground workers, the entry in the rest interval column will be *nil*.

(c) After Schedule C the following Schedules shall be added :—

SCHEDULE D.

(See Rule 11-A.)

Register of minor Accidents.

Date of entry.	Date of accident.	Name of persons injured.	Nature of work.	Nature of injury.	Nature of accident.	Duration of enforced absence from work.	Signature of Manager.
1	2	3	4	5	6	7	8

Miscellaneous—contd.

Statement No. 14—contd.

SCHEDULE F.

(See RULE 9-A.)

Register of persons employed underground.

(Persons entering the mine shall be shown by a X in the column marked "In" against the name.)

(Persons leaving the mine shall be shown by a X in the column marked "Out" against the name.)
(All entries shall be made in ink.)

Period of work commences at p.m.
a.m.

Period of work ends at p.m.
a.m.

For week commencing	and ending
1911	1912
1912	1913
1913	1914
1914	1915
1915	1916
1916	1917
1917	1918
1918	1919
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2054	2055
2055	2056
2056	2057
2057	2058
2058	2059
2059	2060
2060	2061

[illegible]

Total number of persons underground—

Total number of women underground—

Percentage of persons below ground who are women—

Signature of Register-keeper.

AMENDMENTS IN THE

4. In Chapter 11 of the Code of Laws of the State of South Carolina shall be added:

9. The provisions of the Code of Laws of the State of South Carolina shall be amended:

5. After Chapter 11 of the Code of Laws of the State of South Carolina shall be added:

Code of Laws of the State of South Carolina

17. Before any person is appointed as a member of the board of health, the manager shall examine the person on the ground he shall be a member of the board of health.

18. Every person who is appointed as a member of the board of health shall name the certificate as follows:

19. The person who is appointed as a member of the board of health shall make the certificate as follows and keep it in safe custody:

20. No certificate shall be issued for a person who has been a member of the board of health for twelve months of the last year and the quarter of the year in which the certificate for a further period of one year is issued.

21. A qualified medical practitioner shall suspend or revoke an existing certificate or for suspending or revoking a certificate if the manager or the Inspector or Inspector The Chief of the second qualified medical practitioner shall:

22. Every person who has been appointed as a member of the board of health shall be provided by the manager with the letter "P" and numbered. The number shall be:

23. A record of every taken as a member of the board of health shall be in the office of the manager.

Miscellaneous—contd.

Statement No. 14—cont'd.

(a) For the existing Schedule A the following shall be substituted:—

SCHEDULE A.

(See RULE 9.)

Register of employees.

[illegible]

*In mines where work is carried on by a system of relays.

APPENDIX IV—*contd.*Miscellaneous—*contd.*Statement No. 14—*contd.*

(c) After Schedule C the following Schedule shall be inserted :—

SCHEDULE D.

(See RULE 17.)

Form of certificate of fitness for employment underground in a mine.

Counterfoil of certificate of fitness.

Certificate of fitness.

Serial No.....	Serial No.....
Date.....	Date.....
2. Name.....	This certificate unless renewed shall not be valid after.....*
3. Father's name.....	I hereby certify that I have personally examined (name).....
4. Sex and caste or religion.....	..... son/daughter of..... (caste, etc.)..... residing at..... who is desirous of being employed in a mine and that his/her age as nearly as can be ascertained from my examination is.....Years and that he/she is fit for employment underground in a mine as an adult. His/Her descriptive marks are.....
5. Residence.....	.....
6. Age certified.....	.....
7. Distinctive marks.....	.....
.....
Left thumb impression.	Left thumb impression.
.....
Qualified Medical Practitioner.	Qualified Medical Practitioner.
	Renewed till.....
	Date.....

Signature of Qualified Medical Practitioner.

*Date twelve months after date of issue to be filled in by the Medical Practitioner.

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 15.

ACT NO. XXIX OF 1937.

[PASSED BY THE INDIAN LEGISLATURE]

(Received the assent of the Governor General on the 3rd December, 1937.)

An Act further to amend the Indian Mines Act, 1923, for certain purposes.

WHEREAS it is expedient further to amend the Indian Mines Act, 1923, for the purposes herein after appearing, It is hereby enacted as follows —

1 *Short title*—(1) This Act may be called the Indian Mines (Amendment) Act, 1937

2 *Amendment of Section 2, Act XI of 1936*—In section 2 of the Indian Mines (Amendment) Act, 1936,—

(a) in sub section (1), for the words “the following sub section shall be deemed to be inserted” the words “the following sub section shall be inserted” shall be substituted, and

(b) sub section (2) shall be omitted

3 *Amendment of section 9, Act IV of 1923*—In section 9 of the Indian Mines Act, 1923 (herein after referred to as the said Act),—

(a) to sub section (1) the following words shall be added, namely —

“and shall not be disclosed to any person other than a Magistrate or an official superior or the owner, agent or manager of the mine concerned, unless the Chief Inspector or the Inspector considers disclosure necessary to ensure the safety of any person”,

(b) in sub section (2), for the words “to any one, other than a Magistrate or an officer to whom he is subordinate” the following words shall be substituted, namely —

“contrary to the provisions of sub section (1)”,

(c) in sub section (3), for the words following the words “under this section the following words shall be substituted, namely —

“except with the previous sanction of the Central Government”

4 *Amendment of Section 30 A, Act IV of 1923*—In section 30 A of the said Act, for the word “regulations” the word “rules” shall be substituted, and for clauses (a), (b), (c) and (d) the following clauses shall be substituted namely —

“(a) requiring the establishment of central rescue stations for groups of specified mines or for all mines in a specified area, and prescribing how and by whom such stations shall be established,

(b) providing for the management of central rescue stations and regulating the constitution

(c) prescribing the position, equipment, control, maintenance and functions of central rescue stations,

(d) providing for the levy and collection of a duty of excise (at a rate not exceeding six pias per ton) on coke and coal produced in and despatched from mines specified under clause (a) in any group or included under clause (a) in any specified area the utilisation of the proceeds thereof for the creation of a central rescue station fund for such group or area and the administration of such funds,

(e) providing for the formation, training composition, and duties of rescue brigades, and

(f) providing generally for the conduct of rescue work in mines”

5 *Amendment of section 31, Act IV of 1923*—In sub section (1) of section 31 of the said Act, for the word and figure “and 30” the figures and word “30 and 30A” shall be substituted

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 16.

NOTIFICATION.

Dhanbad, the 15th December 1937.

No. P.-2.—In exercise of the powers conferred by Regulation 2(cc) and Regulation 116-A (b) of the Indian Coal Mines Regulations, as published under Notification No. M.-1077, dated the 29th August 1936, and in supersession of Notification No. P.-1. dated Dhanbad, the 29th August 1936, the undernoted list of "Permitted" Explosives is hereby published for general information:—

List of "Permitted" Explosives.

Name of Explosive.	Place of manufacture.	Permissible maximum charge.
Monobel No. 1 . . .	{ Ardeer, Ayrshire, Great Britain, and Modderfontein, South Africa. }	28 ounces.
A. 2 Monobel . . .	{ Ardeer, Ayrshire, Great Britain, and Deerpark, Melbourne, Australia. }	28 ounces.
Polar Dynobel No. 2 . . .	Ardeer, Ayrshire, Great Britain.	28 ounces
Samsonite No. 3 . . .	{ Ardeer, Ayrshire, Great Britain, and Deerpark, Melbourne, Australia. }	28 ounces.
Stonobel . . .	{ Ardeer, Ayrshire, Great Britain, and Deerpark, Melbourne, Australia. }	28 ounces.
Roburite No. 4 . . .	Gathurst, Wigan, Great Britain.	28 ounces.
A. 1 Roundel . . .	Ardeer, Ayrshire, Great Britain.	18 ounces

APPENDIX IV—*contd*Miscellaneous—*contd*,Statement No 16—*contd*

Provided (a) that each cartridge of explosive shall be marked with the outline of a crown with the letter "P" in the centre and (b) that the explosive when used in any mine or place in which "permitted" explosives are required to be used by any Regulation or order under the Indian Mines Act, shall be fired by one of the following types of approved shot firing apparatus —

List of shot firing apparatus

Manufactured by	Name of apparatus
<i>Magneto Exploders</i>	
British Insulated Cables, Limited, Prescott, Lancashire	Helsby (1932) L T
Ditto	Helsby (1933) L F
John Davis & Son (Derby) Limited, All Saints' Works, Derby	Davis No 15 X (1932) L 1
General Electric Co., Ltd., Magnet House, Kingsway, London, W C 2	Magnet (1932) L T
<i>Battery Exploders</i>	
John Davis & Son (Derby) Limited, All Saints' Works, Derby	Davis (1932) L 1
General Electric Co., Ltd., Magnet House, Kingsway, London, W. C 2	G E C (1933) L 1
Heyes & Co., Ltd, Wigan	Wigan No 4 L F

Statement No. 17.

Circular No. 1.

Dhanbad, the 6th January 1937

From

D Pennan, Esq., D Sc, FRSE,
Chief Inspector of Mines in India

To

The Owners, Agent or Manager.

Sir,

I have the honour to invite reference to my Circular No 10 of 1936, dated 28th November 1936, wherein I pointed out the necessity of using certified and totally enclosed flameproof apparatus in safety lamp mines in situations which are not main intake airways and also near depuiling areas

APPENDIX IV—*contd.*Miscellaneous—*contd.*

Statement No. 16.

NOTIFICATION.

Dhanbad, the 15th December 1937.

No. P.-2.—In exercise of the powers conferred by Regulation 2(cc) and Regulation 116-A (b) of the Indian Coal Mines Regulations, as published under Notification No. M.-1077, dated the 29th August 1936, and in supersession of Notification No. P.-1, dated Dhanbad, the 29th August 1936, the undernoted list of "Permitted" Explosives is hereby published for general information:—

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Polar Dynobel No. 2 . .	Ardeer, Ayrshire, Great Britain.	28 ounces.
Samsonite No. 3 . . .	{ Ardeer, Ayrshire, Great Britain, and Deerpark, Melbourne, Australia. }	28 ounces.
Stonobel	{ Ardeer, Ayrshire, Great Britain, and Deerpark, Melbourne, Australia. }	28 ounces.
Roburite No. 4	Gathurst, Wigan, Great Britain.	28 ounces.
A. 1 Roundel	Ardeer, Ayrshire, Great Britain.	18 ounces

APPENDIX IV—*contd*Miscellaneous—*contd*,Statement No 15—*contd*

a crown with
place in which
Indian Mines

List of shot firing apparatus

Manufactured by	Name of apparatus
<i>Magneto Exploders</i>	
British Insulated Cables Limited Prescot, Lancashire	Helsby (1932) L T
Ditto	Helsby (1933) L T
John Davis & Son (Derby) Limited, All Saints Works, Derby	Davis No 15 X (1932) L 1
General Electric Co, Ltd, Magnet House Kingsway, London, W C 2	Magnet (1932) I F
<i>Battery Exploders</i>	
John Davis & Son (Derby) Limited All Saints Works Derby	Davis (1932) L 1
General Electric Co, Ltd, Magnet House Kingsway, London W C 2	G E C (1933) L 1
Heyes & Co, Ltd, Wigan	Wigan No 4 L T

Statement No 17

Circular No 1

Dhanbad, the 6th January 1937

From

D Penman, Esq D Sc, FRSE,
Chief Inspector of Mines in India.

To

The Owners Agent or Manager

Sir

I have the honour to invite reference to my Circular No 10 of 1936 dated 28th November 1936 wherein I pointed out the necessity of using certified and totally enclosed flameproof apparatus in safety lamp mines in situations which are not main intake airways and also near depollaring areas

APPENDIX IV—*contd*Miscellaneous—*contd*,Statement No 15—*contd*

a crown with
 place in which
 Indian Mines

List of shot firing apparatus

Manufactured by	Name of apparatus
<i>Magneto Exploders</i>	
British Insulated Cables, Limited, Prescott Lancashire	Helsby (1932) L T
Ditto	Helsby (1933) L T
John Davis & Son (Derby) Limited, All Saints Works, Derby	Davis No 15 A /1932) L 1
General Electric Co., Ltd., Magnet House, Kingsway, London, W C 2	Magnet (1932) L F
<i>Battery Exploders</i>	
John Davis & Son (Derby) Limited, All Saints Works, Derby	Davis (1932) L 1
General Electric Co., Ltd., Magnet House, Kingsway, London, W C 2	G E C (1933) L 1
Heyes & Co., Ltd., Wigan	Wigan No 4 L T

Statement No. 17.

Circular No. 1.

Dhanbad, the 6th January 1937.

From

D Penman, Esq., D Sc, F R S E,
 Chief Inspector of Mines in India

To

The Owners, Agent or Manager

Sir,

I have the honour to invite reference to my Circular No 10 of 1936 dated 25th November 1936, wherein I pointed out the necessity of using certified and totally enclosed flameproof apparatus in safety lamp mines in situations which are not main intake airways and also near depollaring areas

APPENDIX IV—*contd.*

Miscellaneous—*contd.*

Statement No. 17—*contd.*

As there remains a serious risk of a sudden emission of firedamp in dangerous quantities from goaves in depillaring areas, it is essential for safety that all electrical apparatus which may be situated even in main intake airways within a distance of 700 feet from the nearest depillaring areas or the nearest goaf edges should also be of the certified and totally enclosed flame proof types, unless the goaves are effectively packed.

All signalling instruments connected to bare signalling wires which may extend to above situations should be of the types approved by the British Mines Department and tested for intrinsic safety.

I shall be glad if you would kindly arrange to give effect to the above matters as early as possible.

I have the honour to be,

Sir,

Your most obedient servant,

D. PENMAN,
Chief Inspector of Mines in India.

Statement No. 18.

Circular No. 2 of 1937.

Dhanbad, the 12th January 1937.

To

The Owner, Agents or Manager.

Apparatus required for sampling and analysing coal-dust samples.

1. Five or six dozen small tins about 4" tall and 2½" diameter, with wellfitting lids (empty health-salt tins are quite suitable). The tins must be dried thoroughly in the water-oven, if necessary, before use.

2. One small hand-brush.

3. One tray about 15" square, with one edge flat, as in the case of an ordinary dust-pan.

4. One case about 16" by 22" by 5" in which to carry the samples.

It is desirable that the case should be divided into compartments by cardboard partitions as in an egg-box. About three dozen samples can then be taken on one round.

5. One chemical balance in case to weigh 100 grams to one-tenth of a milligram with a box of weights for same.

6. Two desiccators (Schieblers) 6 inches to 8 inches in diameter.

7. Two pounds of concentrated sulphuric acid (for desiccators and the balance case).

8. Two lamp gauzes for use as sieves.

APPENDIX IV—contd

Miscellaneous—contd

Statement No. 18—contd

9 One sieve of 200 meshes to the lineal inch, with case and top, 3 inches diameter, for sieving test on the stone dust

10 One pair of crucible tongs 8 inches long of iron or copper

11 Four dozen crucibles, best porcelain with lids (1 inch high, 1½ inches diameter)

12 Six watch glasses (3 inches diameter)

Also the following according as heating by gas or electricity is to be resorted to —

13 If heating by gas —

(a) One ordinary water oven 10 inches by 10 inches by 10 inches

(b) One dozen bunsen burners, 6 inches by ⅞ inch diameter

(c) Four gas taps

(d) One dozen F pieces ⅜ inch diameter

(e) One dozen screw clips, ½ inch with lunge

(f) Ten yards best rubber tubing for gas piping ⅜ inch diameter

(g) One dozen pipe clay triangles—medium size

(h) Six tripods

14 If heating by electricity —

(a) One electrically heated water-oven (with fittings) inside dimensions 10 inches by 10 inches by 10 inches

(b) One electrically heated furnace (with fittings) capable of attaining a temperature of 1,000°C—inside dimensions 12 inches by 5 inches by 3½ inches

D PENMAN,

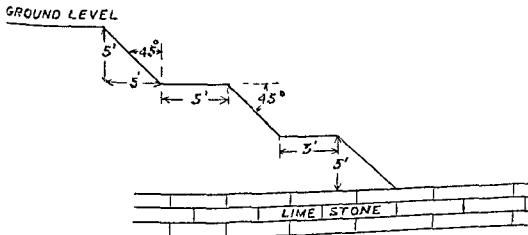
Chief Inspector of Mines in India.

Statement No 19

Instructions regarding removal of overburden, sloping and stepping of sides of Limestone quarries

1 All overburden shall be removed down to the top bed of limestone and clear of the edge of the limestone for a distance of not less than 10 feet and constantly maintained at that distance or a greater distance

2 Where the thickness of the overburden exceeds 5 feet the sides shall be stepped as in the sketch below



APPENDIX IV—*contd.*

Miscellaneous—*contd.*

Statement No. 19—*contd.*

Provided that the steps may be made at intervals of less than 5 feet in the same proportion as is shown in the sketch :

Provided also that foot-paths for the use of work-persons may be made where necessary so long as the sides of such foot-paths are sloped and stepped in the manner specified.

3. No loose pieces of stone should be left lying within 5 feet of the edge of the quarry at the ground level or on any of the steps or benches.

4. Where the limestone is removed in benches no such bench shall exceed 5 feet in height above the level of the quarry in the vicinity of the bench.

5. Where owing to the specially soft nature of the ground precautions exceeding those stated are necessary, they shall be taken by the manager.

D. PENMAN,

Chief Inspector of Mines in India.

Circular No. 3.

Dhanbad, the 17th March 1937.

Copy forwarded to the.....

.....
for information, with the request that the above instructions should be carried out.

Chief Inspector of Mines in India.

Statement No. 20.

Circular No. 4.

Dhanbad, the 21st April 1937.

The attention of owners, Agents and Managers of all mica and copper mines is invited to the register required under Section 28(1) and Rule 9. It is important that a correct record should be maintained at any moment of the names of every person working below-ground in a mine. Such records should be maintained in the sample form of register as appended until such time as an amended form of register is prescribed.

D. PENMAN,

Chief Inspector of Mines in India.

APPENDIX IV—cont'd

Miscellaneous—cont'd

Statement No. 20—cont'd

A register of work persons employed underground

Name of mine

Names of owners

Name and age	Age and sex	Father's name, or in case of a married woman or widow husband's name	Nature of work	SUNDAY		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY		Number of hours worked during the week ending
				In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
1	2	"	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Total number of persons employed underground

APPENDIX IV—*contd.*

Miscellaneous—*contd.*

Statement No. 21.

Circular No. 5.

Dhanbad, the 1st June 1937.

To

The Owner, Agent or Manager
.....
.....

Sir,

Gentlemen,

.....
 ghbhum has drawn my attention to an outbreak of Cholera in the District
 of in the Dhalbhum Sub-Division. He fears that it may spread rapidly un-
 less preventive steps are taken.

In these circumstances I shall be pleased if you will kindly take all such precautionary measures
 in consultation and in co-operation with the medical Department of the district as may be necessary.

I have the honour to be,

Sir,

Your most obedient servant,

W. KIRBY,

Chief Inspector of Mines in India (Offg.).
-----Statement No. 22.

Circular No. 6.

Dhanbad, the 29th June 1937.

The attention of Owner, Agents and Managers of all coal mines is drawn to Notifications
 No. M-1053, dated the 1st February 1937, and No. M-1055, dated the 17th June 1937, issued by the
 Government of India, Department of Industries and Labour, regarding the regulations for prohibiting
 the employment of women underground in mines.

It should be noted that the effect of the latter Notification is to suspend only Regulation 1 of
 the regulations laid down in Notification, dated the 1st February 1937. Regulations 3 and 4 of
 that notification remain in force unaltered. They read as follows:—

“*Regulation 1.*—No woman shall be permitted to enter or remain in the underground workings of
 any mine unless she is in possession of a pass granted by the manager of the mine

APPENDIX IV—*contd.*

Miscellaneous—*contd*

Statement No. 22—*contd*

Regulation 4—Before a woman enters a mine with a pass granted under Regulation 3 her name, address and occupation shall be entered in a register maintained for this purpose at the surface of the mine, and her exit from the mine shall also be recorded in that register

Provided that in any mine to which sub section (4) of Section 28 of the Indian Mines Act, 1923 (IV of 1923), has been declared to be applicable the entries required by this regulation may be made in the register prescribed by that sub section

W KIRBY

Chief Inspector of Mines in India (Offg)

Statement No 23

Circular No 7

Dhanbad, the 12th July 1937.

The attention of Owners, Agents and Managers of all coal mines is drawn to the recommendation made by the Coal Mining Committee in paragraph 311 of their Report that all short firers should be paid a regular wage and should not be allowed to have any financial interest in coal getting

It is requested that all will co operate in giving effect to the recommendation as a safety measure

W KIRBY,

Chief Inspector of Mines in India (Offg)

